STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF:

PROPOSED AMENDMENTS TO STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS, 20.6.4 NMAC

No. WQCC 20-51 (R)

TRIAD NATIONAL SECURITY, LLC AND THE UNITED STATES DEPARTMENT OF ENERGY'S CLOSING ARGUMENT

September 24, 2021

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Triad National Security, LLC ("Triad") and the United States Department of Energy, National Nuclear Security Administration ("DOE") (collectively "LANL"), pursuant to 20.1.6.304 NMAC and the Procedural Order issued November 9, 2020, hereby submits its Closing Argument, together with LANL's proposed final changes to 20.6.4 NMAC, the New Mexico Water Quality Control Commission's ("WQCC" or "Commission") Standards for Interstate and Intrastate Surface Waters ("Standards") (attached as Exhibit A) and LANL's proposed Statement of Reasons (attached as Exhibit B). LANL respectfully recommends that the Commission amend the New Mexico surface water standards at 20.6.4 NMAC accordingly.

INTRODUCTION

Los Alamos National Laboratory (the "Laboratory") is a Federally Funded Research and Development Center that began in 1943, which aligns its strategic plan with priorities set by DOE. Triad operates the Laboratory on behalf of DOE and executes work in all of DOE's missions. The Laboratory's contributions are part of what makes DOE a science, technology, and engineering powerhouse for the nation. Triad also performs work for the Department of Defense, Intelligence Community, and Department of Homeland Security, among others. As a result, the Laboratory's strategy reflects U.S. priorities spanning nuclear security, intelligence, defense, emergency response, nonproliferation, counterterrorism, energy security, emerging threats, and environmental management. The Laboratory performs significant work in many areas, including vaccine research and development, hydrogen fuel cell programs, and climate change research.

Triad and DOE support clear, consistent, and effective regulation for surface water in New Mexico. With its over seventy-five year operational history and a significant portion of the Laboratory's workforce occupying the Laboratory's immediately adjacent community, operating safely, reliably, and compliantly is essential. It is in LANL's interest to protect these stakeholders as well as those beyond the Laboratory's immediate community. More broadly, the way Triad

operates the Laboratory is crucial to safely, securely, and efficiently doing work to protect the nation. Obeying environmental regulations and policies is embedded in the foundation of the Laboratory's environmental stewardship program—an important building block that helps LANL attain the overall goal of environmental sustainability.

Clear, consistent, and actionable environmental regulations are crucial to operation of the Laboratory and its ability to maintain superior environmental stewardship. With approximately 80 miles of surface waters within the Laboratory's exterior boundaries and full-time environmental staff dedicated to surface water matters, the Laboratory has always been, and will continue to be, a significant stakeholder in the Triennial Review process. While the stakeholder involvement in this Triennial Review was far less than prior Triennial Reviews, for both the pre-petition and post-petition portions of the process, LANL endeavored to work with the New Mexico Environment Department ("NMED" or "Department") to explain and address concerns that proposed regulatory changes were unclear or inconsistent. Unfortunately, many of these concerns were not resolved in the pre-filing phase of this Triennial Review and, as a result, the Commission has an extensive set of disputed proposals to consider. In reviewing proposed changes to the Standards, LANL encourages the Hearing Officer and the Commission to consider the following general observations and principles:

- **No Party Has a Favorable View of NMED's New Alternative Approaches to Existing Use Analyses, and NMED Should Not Be Permitted to Use Such Approaches to Support Changes to New Mexico Surface Waters Unless and Until Approved by the Commission**

It is unusual for the regulated community, federal facilities, and the activist community to have alignment in a Triennial Review. However, testimony offered in the Triennial Review showed general concern from all interested parties regarding NMED's new approaches for existing use analyses. The specifics of these proposals were not unveiled until late into this Triennial

Review process. *See* **NMED Ex. 56** (NMED's Designated Use Analysis – Existing Recreational Designated Use) ("Recreational EUA"), and **NMED Ex. 73** (NMED's Designated Use Analysis – Existing Use Analysis for certain LANL waters), corrected and refiled as **NMED Ex. 124** (NMED's Corrected Designated Use Analysis) (collectively referred to as "LANL EUA"). In light of uniform concerns, an existing use analysis process such as the one suggested by LANL should be adopted by the Commission and formalized *before* being proffered as evidentiary foundation for Commission decision-making. Alternatively, in light of the significant public interest and far-reaching impacts, the Commission may instead consider retaining the current Use Attainability Analysis ("UAA") process for all use determinations, even if not strictly required, since such a process assures appropriate Commission oversight.

- **Proposals that Include Specific Toxic Pollutants Address Due Process Considerations and Are More Protective of New Mexico Waters than Proposals that Would Include Select Pollutants in Permits on an *Ad Hoc* Basis**

Proposals to maintain and expand an ambiguous definition for toxic pollutants, in effect, advocate inclusion of limited monitoring in—what will effectively be—select federal Clean Water Act permits. Additionally, such proposals exacerbate due process issues with New Mexico's narrative standards. This *ad hoc* approach to data collection places burdens where politically expedient but of limited practical utility. For example, although NMED's own data supports that emerging contaminants are a significant issue in water treatment facilities, in the tri-city region of Los Alamos, Santa Fe, and Española, historically it has only been the Laboratory—not other permittees—that has had been targeted with greater monitoring requirements during the state certification process for federal Clean Water Act permits.[1] **Amigos Bravos Ex. 5** (showing LANL

[1] To be clear, LANL supports monitoring efforts including New Mexico's monitoring programs across the state, including New Mexico's PFAS study that will be completed in 2022. DOE funds NMED to conduct monitoring for PFAS and other compounds at DOE facilities, including LANL.

levels of study constituents at levels far lower than regional municipal water treatment facilities but emphasizing further study at LANL).

To facilitate more meaningful protection of New Mexico's waters—statewide—the Commission should strengthen its regulatory process. The Commission should define what constituents are considered to be toxic pollutants for purposes of surface waters, incorporate those defined constituents directly into the Standards, and establish the same level of monitoring and protection for all similarly situated waters throughout the State. Any other approach is open to legal challenge and will continue to provide a more limited patchwork of protection for New Mexico's waters.

Emerging contaminants should be incorporated into the surface water list of toxic pollutants as the Commission understands specific constituents to be toxic based upon available information, but not speculatively. LANL's revised proposals on toxic pollutants provides regulatory certainty and a clear, defensible path for the Commission to address constituents that should be recognized to be of significant concern in surface waters across New Mexico. *See* **Exhibit A**.

- **NMED Should Never be Allowed to Change Waters Classified by the Commission by Administrative Fiat**

While we are all well-served by hard-working NMED staff, the roles and authority of staff are by nature limited. Whether it is NMED employing a novel existing use analysis process before the Commission has adopted any such process into regulation, or focusing on water quality alone without considering the actual use of a water, or NMED micro-focusing on small segments of larger intermittent segments to declare them "perennial" and declassifying them without Commission action, the Commission must retain its responsibility for classification decisions of the waters of the State, and base decisions on a more holistic approach than offered by NMED. It

is the Commission's process, which is not and cannot be replicated at the staff level, which ensures transparency and a full opportunity for public participation in significant decisions for New Mexico's surface waters.

These principles and observations will be reinforced through LANL's Discussion below, specifically in: Section I, covering the Classification of LANL Waters; Section II, covering the Process for Reviewing and Amending the Water Quality Standards; and Section III, covering General Criteria and proposed definitions for Toxic Pollutants and Containments of Emerging Concern. Section IV explains why LANL refined its position during rebuttal to support proposals by other interested parties pertaining to climate change amendments. Finally, Section V discusses why the logical outgrowth doctrine does not preclude the Commission's review of LANL's proposed amendments as part of this Triennial Review.

STANDARD OF DECISION

Section 303(c) of the federal Clean Water Act ("CWA") requires each State to hold public hearings at least every three years for the purpose of reviewing and, as appropriate, modifying and adopting water quality standards that are consistent with the requirements of the CWA. 33 U.S.C. § 1313(c)(l). Under the New Mexico Water Quality Act ("WQA"), the Commission is the entity responsible for adopting water quality standards for surface and ground waters of the State of New Mexico. The WQA provides that the Commission:

> shall adopt water quality standards for surface and ground waters of the state based on credible scientific data and other evidence appropriate under the Water Quality Act. The standards shall include narrative standards and, as appropriate, the designated uses of the waters and the water quality criteria necessary to protect such uses. The standards shall at a minimum protect the public health or welfare, enhance the quality of water and serve the purposes of the Water Quality Act. In making standards, the commission shall give weight it deems appropriate to all facts and circumstances, including the use and value of the water for water supplies, propagation of fish and wildlife, recreational purposes and agricultural, industrial and other purposes;

NMSA 1978, § 74-6-4(D).[2] New Mexico's current surface water quality standards are codified at 20.6.4 NMAC and were adopted by the Commission during the last Triennial Review of Surface Water Quality Standards in 2013 ("2013 Triennial Review"). A party proposing an amendment to the existing standards during this 2020 Triennial Review bears the burden of demonstrating that the proposal is warranted and appropriate. *See Tenneco Oil Co. v. New Mexico Water Quality Control Comm'n*, 1987-NMCA-153, ¶ 8, 107 N.M. 469, 471, 760 P.2d 161, 163.

Following the Commission's review and adoption of revised water quality standards, the State must submit the revised standards to the United States Environmental Protection Agency ("EPA") for review. 40 C.F.R. §§ 131.5, 131.21. EPA reviews the revised standards to determine whether: (1) the State has adopted water uses that are consistent with the requirements of the federal CWA; (2) the State has adopted criteria that protect the designated water uses; (3) the State has followed its legal procedures for revising or adopting standards; (4) the State standards that do not include the uses specified in Section 101(a)(2) of the CWA are based upon "appropriate technical and scientific data and analyses"; and (5) the State submission to EPA meets the minimum requirements for water quality standards set forth at 40 C.F.R. Section 131.6. *See* 40 C.F.R. § 131.5. EPA will approve the standards if each of these factors is satisfied. *Id.* § 131.5(b).[3]

The Commission's review and adoption of water quality standards serves dual purposes. The Standards define water quality goals for specific State waterbodies, or portions thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect

[2] The federal CWA regulations provide similar direction: "States adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clear Water Act." 40 C.F.R. § 131.2. Serving the purposes of the CWA means that "water quality standards should, whenever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation." *Id.* A water quality standard "defines the goals for a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses." *Id.*

[3] If EPA does not approve the State-adopted standards, EPA may promulgate a new or revised standard as necessary to meet the requirement of the CWA. *See* 40 C.F.R. § 131.5(b).

those uses. *See* NMSA 1978, § 74-6-4(D); 40 C.F.R. § 131.2. In addition, the Standards serve as the regulatory basis for the establishment of water-quality-based treatment controls and strategies beyond the technology-based level for treatment required under the WQA and the federal CWA. 40 C.F.R. § 131.2.

DISCUSSION

I. THE CLASSIFICATION OF LANL WATERS

In this Triennial Review, the Commission is asked to review the appropriate classification for ephemeral, intermittent, and perennial waters located within the exterior boundary of the Laboratory. This is not a matter of first impression for the Commission. The Commission previously considered the classification of LANL waters during the 2003 Triennial Review, WQCC 02-05(R). At that time, NMED proposed to classify all stream segments within LANL, based upon an extensive U.S. Fish and Wildlife Service assessment of the water quality in streams within LANL. *See* **LANL Ex. 20** (2003 NMED Petition); **NMED Ex. 135** ("FWS Study"); *see also* **LANL Ex. 30** at 2-7 (Saladen Affidavit).

On May 13, 2005, the Commission adopted sections 20.6.4.126 NMAC ("Section 126") and 20.6.4.128 NMAC ("Section 128"). Perennial waters within LANL were classified under Section 126, and all other waters (ephemeral and intermittent) were classified under Section 128. *See* 20.6.4.126 NMAC; 20.6.4.128 NMAC; *see also* **LANL Ex. 2** at 8-14 (Meyerhoff Direct) (recounting the history of the classification of all LANL waters during the 2003 Triennial Review); **LANL Ex. 22** (excerpt from 2003 NMED Revised Petition); **LANL Ex. 23** (excerpt of Direct Testimony of Dr. Frederick M. Fisher, Triennial Review Public Hearing (October 31, 2003)); Hrg. Tr., Vol. IV, 1327:2-1329:5 (Meyerhoff). Pursuant to Section 303(c)(2) of the CWA, EPA reviewed the Commission's adopted standards and instructed that a UAA was required to support the proposed secondary contact use designation for Sections 126 and 128 and the proposed limited

aquatic life use designation for Section 128. *See* **LANL Ex. 24** (EPA Excerpt of Triennial Review Record of Decision, 2006). EPA noted that while the FWS Study itself was not a UAA, the FWS Study could be used in NMED's UAA. *Id*. at 64; **LANL Ex. 2** at 15 (Meyerhoff Direct).

In response to EPA's request, and based on the extensive FWS Study and additional information, NMED prepared and submitted the "Use Attainability Analysis for Waters Located on Los Alamos National Laboratory as described in Sections 20.6.4.126 and 128 NMAC New Mexico Water Quality Standards, July 17, 2005." **LANL Ex. 18** ("2007 UAA"). After receiving the 2007 UAA, EPA approved the classified waters and designated uses for Sections 126 and 128, thereby classifying all surface waters within LANL. *See* **LANL Ex. 19** (EPA Approval to NMED Revisions, 2007); *see also* **LANL Ex. 2** at 14-17 (Meyerhoff Direct) (reviewing EPA's approval of the classification of LANL waters during the 2003 Triennial Review); **LANL Ex. 26** (Excerpt of EPA Record of Decision on the 2009 Triennial Review reaffirming approval of the 2007 UAA on August 31, 2007); **LANL Ex. 58** at LANL-01084 (Meyerhoff Rebuttal); Hrg. Tr., Vol. IV, 1326:5-18 (Meyerhoff).

Since the completion of the 2003 Triennial Review, the Commission has not amended its classification of LANL waters under Sections 126 and 128. *See* **LANL Ex. 2** at 18-19 (Meyerhoff Direct); **LANL Ex. 3** at 14 (Gallegos Direct); **LANL Ex. 30** at ¶ 14 (Saladen Affidavit). Indeed, NMED and the Commission have stood by the Commission's classification decisions for LANL waters in subsequent requests for reconsideration. Nevertheless, LANL remains committed to evaluating the water quality of LANL waters and supports amending the designated uses for LANL waters where supported by the best available scientific evidence. *See, e.g.*, **LANL Ex. 25** at 4 (Rebuttal Declaration of Michael T. Saladen, WQCC 14-05(R)) (describing LANL's "essentially

continuous" efforts to evaluate water quality for streams within LANL); **LANL Ex. 3** at 19 (Gallegos Direct); **LANL Ex. 60** at 16 (Goering Rebuttal).

To that end, during the 2013 Triennial Review, Amigos Bravos, DOE, Los Alamos National Security LLC, and NMED entered into a Joint Stipulation, whereby the parties agreed to collect data and work together to continue evaluation of the appropriate water quality protections for LANL waters currently classified under Section 128.[4] *See* **LANL Ex. 29** ("2015 Joint Stipulation"). Beginning in 2016, LANL staff worked with Amigos Bravos and NMED to evaluate Section 128 stream segments in more detail. Over 100 stream assessments were conducted in accordance with the Hydrology Protocol ("HP") set forth in NMED's Water Quality Management Plan and Continuing Planning Process ("WQMP/CPP"). **LANL Ex. 3** at 4-5 (Gallegos Direct); **LANL Ex. 36** (Chronology of Activities Completed under the 2015 Joint Stipulation); **LANL Ex. 37** (Map of HP Assessment Sites); Hrg. Tr., Vol. IV, 1336:6-15 (Gallegos). In addition, LANL collected stream gage data, precipitation data, water quality data, and conducted riparian inventories, and shared that data with Amigos Bravos, NMED, and the public. *See* **LANL Ex. 3** at 4-5, 11 (Gallegos Direct); **LANL Exs. 38** through **42** (Data compilation); Hrg. Tr., Vol. IV, 1350:14-21 (Gallegos); Hrg. Tr., Vol. IV, 1357:19-1358:4 (Goering). The substantial data gathered pursuant to the 2015 Joint Stipulation forms much of the basis for LANL's proposals to the Commission in this Triennial Review.

[4] To the extent that other parties suggest that LANL's intention for entering the Joint Stipulation relates to some fundamental disagreement with the Commission's decisions on the classification of LANL waters, the assertion is without merit. LANL's commitment to continuous evaluation and reevaluation of LANL waters is part of LANL's ongoing environmental stewardship program.

A. LANL's Proposed Amendments to LANL Waters Classifications Based on the Joint Stipulation

LANL waters classified under Section 128 remain predominantly ephemeral and intermittent, and support designated uses for limited aquatic life and secondary contact recreation. However, the data collected pursuant to the 2015 Joint Stipulation allows for a closer, more detailed analysis of Section 128 segments. This is the scientific process directed by the CWA, 40 C.F.R. § 131.20, and the agreement of the parties to the 2015 Joint Stipulation.

First, the data show that certain short reaches within the larger Section 128 segments have perennial flow characteristics. Therefore, although Section 128 waters are accurately characterized as ephemeral or intermittent when taken as a whole, LANL proposes that these perennial reaches, which are contiguous to existing Section 126 waters, can be moved into Section 126—the section that the Commission adopted during the 2003 Triennial Review for perennial waters located within LANL. Specifically, LANL has proposed that the Commission classify the following additional segments under Section 126: (1) Pajarito canyon from 0.5 miles below Arroyo de la Delfe upstream to Homestead Spring; and (2) Arroyo de la Delfe from Pajarito canyon to Kieling Spring. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC).[5] Alternatively, absent Commission action to move these short segments will remain in Section 128, given the segments as a whole are undeniably intermittent/ephemeral in nature. **NMED Ex. 135**. LANL's proposed reclassification would afford greater aquatic life protections for the newly identified short perennial reaches within Section 128 waters than either current classification in Section 128 or declassification (see, Section I.C, below).

[5] As described in LANL's proposal, the first segment – Pajarito canyon from 0.5 miles below Arroyo de la Delfe upstream to Homestead Spring – includes the existing Section 126 perennial water in Pajarito canyon from the confluence with Arroyo de la Delfe to Starmers gulch and the following two contiguous reaches: (i) Pajarito canyon from 0.5 miles below Arroyo de la Delfe to the confluence with Arroyo de la Delfe ("Pajarito Upper Section"); and (ii) Pajarito canyon from Starmers Gulch to Homestead Spring ("Pajarito Lower Section"). *See* **LANL Ex. 3** at 19-20 (Gallegos Direct).

Second, the data collected pursuant to the 2015 Joint Stipulation, as well as other credible scientific data, show that certain other segments of current Section 128 waters support a marginal warmwater aquatic life use, rather than their current limited aquatic life use designation. Accordingly, LANL has proposed that the Commission move the following segments from Section 128 to NMED's proposed new section 20.6.4.140 NMAC ("Section 140"): (1) Twomile Canyon from LANL stream gage E244 upstream to its confluence with upper Twomile Canyon; and (2) S-Site Canyon from alluvial groundwater well MSC 16-06293 upstream to Martin Spring. *See* **LANL Ex. 57** at 18 (Proposed Changes to 20.6.4 NMAC).

LANL's proposed amendments to Section 126 and Section 140 are illustrated by the figures on the following pages. Figure 1, which is adopted from NMED's 2007 UAA, shows the extent of the current Section 128 (shown in green) and Section 126 (shown in red) waters within the Laboratory, as classified by the Commission during the 2003 Triennial Review. Figure 2 then shows LANL's proposal to subdivide portions of the Section 128 waters into either Section 126 (shown in light blue) or Section 140 (shown in orange) based upon the evaluation of Section 128 waters conducted pursuant to the 2015 Joint Stipulation and other evidence. *See* **LANL Ex. 37 (**Map of HP Assessment Sites); **LANL Ex. 3** at 19-21, 26-31 (Gallegos Direct).

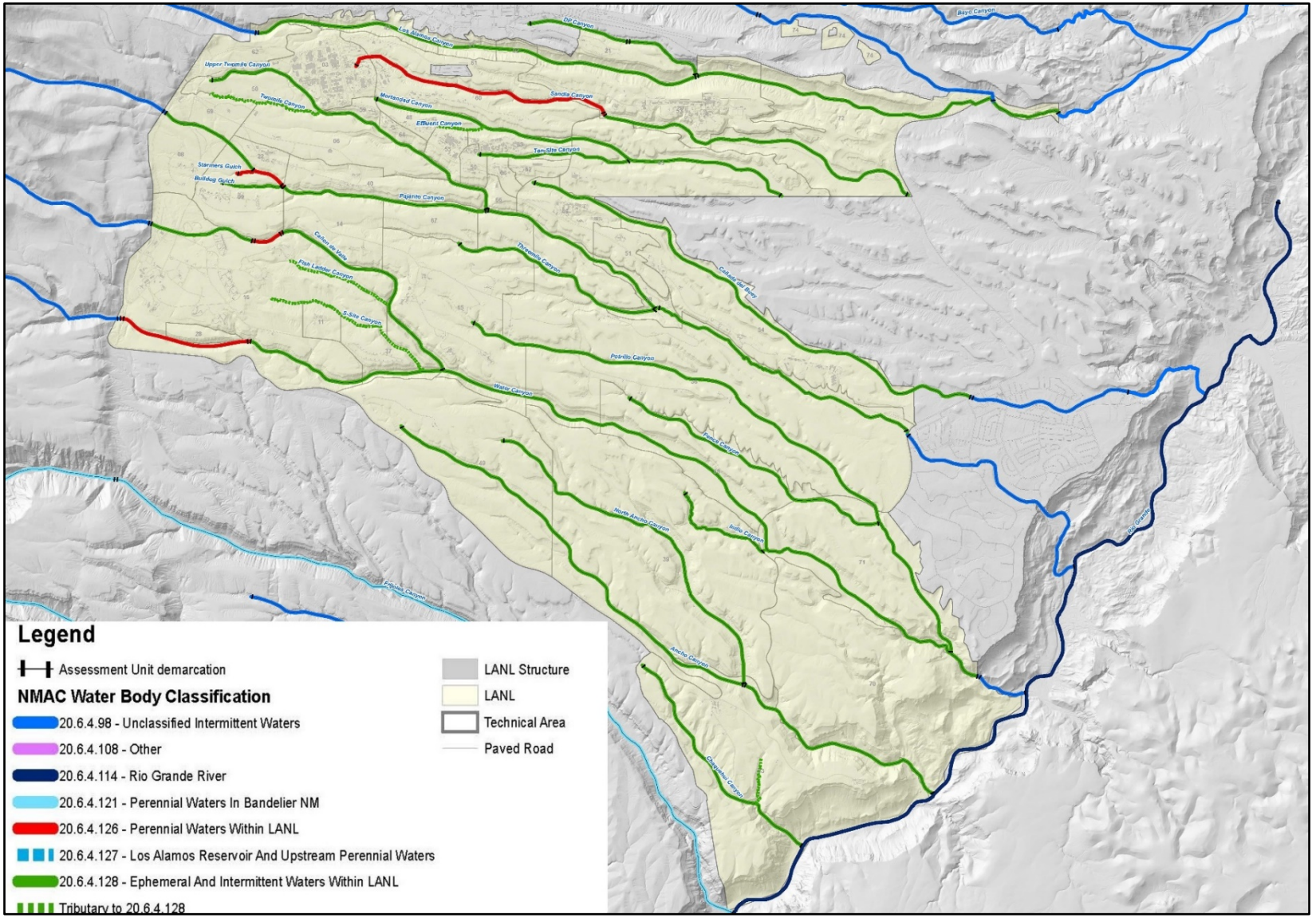

Figure 1, Map of NMAC Classifications for LANL Waters following 2003 Triennial Review. Adopted from Attachment 2 to NMED's 2007 UAA, **LANL Ex. 18.**

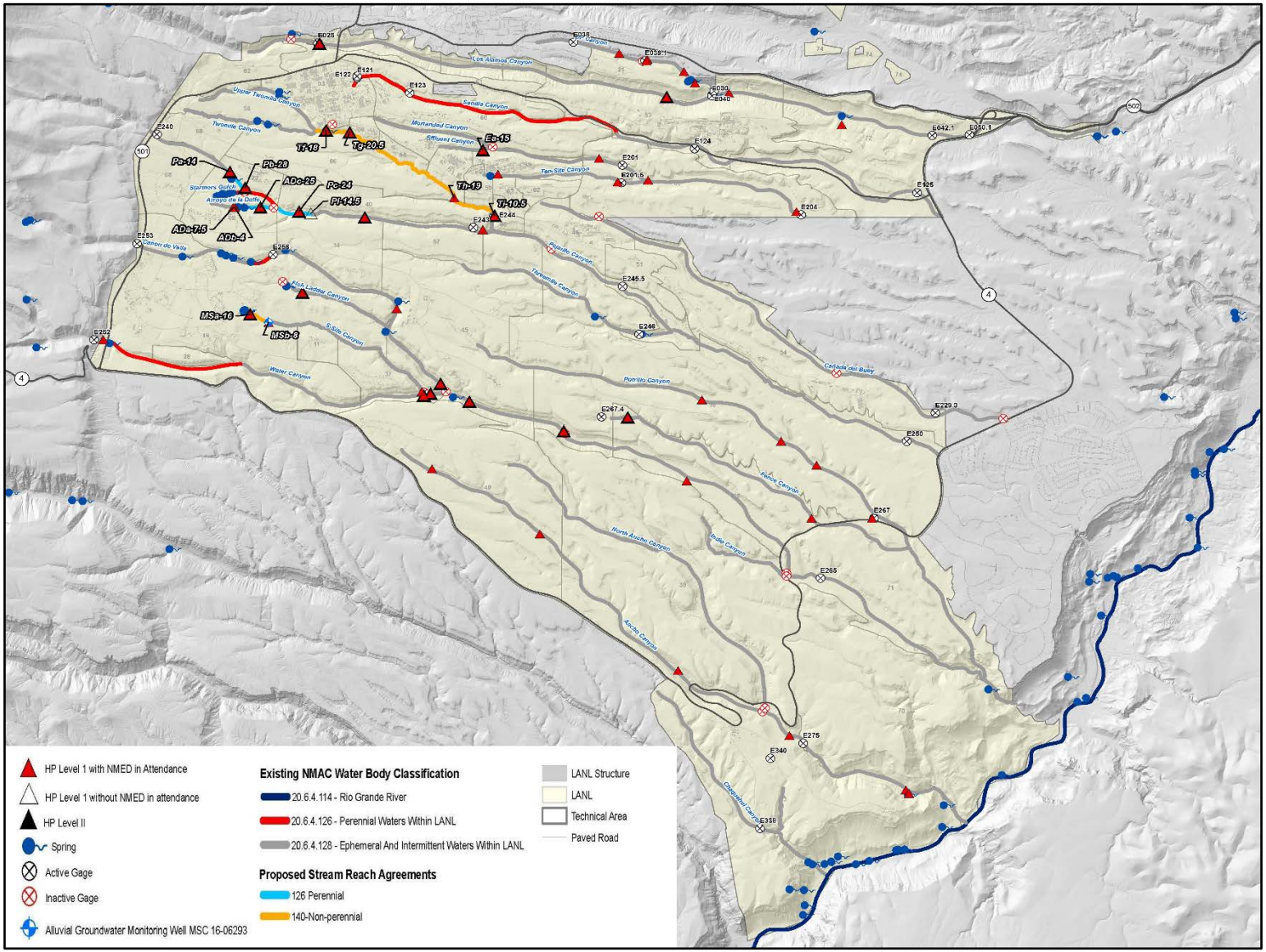

Figure 2, Map of LANL Proposed Classifications for LANL Waters Pursuant to Work Completed Under the Joint Stipulation. *See* **LANL Ex. 57**.

B. LANL's Proposed Classifications Are Supported by Credible Scientific Data and Other Reliable Evidence

The Commission should adopt LANL's proposals to reclassify the above-described reaches under Section 126 and Section 140. The Commission may adopt and amend water quality standards for surface waters of the State "based on credible scientific data and other evidence appropriate under the Water Quality Act." NMSA 1978, § 74-6-4(D). LANL has demonstrated during this Triennial Review that substantial, credible, scientific data and other appropriate evidence supports LANL's proposed amendments to Section 126 and Section 140.

Specifically, LANL's proposal to expand Section 126 by adding newly identified perennial portions of Section 128 waters is supported by HP Level 1 and Level 2 assessments, stream gage data, benthic invertebrate data, field observations and photographs, and temperature, pH, and dissolved oxygen data. **LANL Ex. 3** at 17-26 (Gallegos Direct); **LANL Ex. 4** at 14-25 (Goering Direct); **LANL Exs**. **38-43** (Data Compilations and Proposed Segment Summary Sheets). As LANL's technical witnesses testified during the hearing, these data provide a "strong technical basis" to support LANL's proposed reclassification under Section 126. *See* Hrg. Tr., Vol. IV, 1341:3-1342:2 (Gallegos); Hrg. Tr., Vol. IV, 1357:19-1359:4 (Goering); *see also* **LANL Ex. 3** at 17-21 (Gallegos Direct); **LANL Ex. 4** at 17-21 (Goering Direct).

LANL's proposal for Section 126 is also consistent with the purpose of the 2015 Joint Stipulation to continue evaluating Section 128 waters and increase water quality protections for those waters where appropriate. Hrg. Tr., Vol. IV, 1338:11-18, 1339:2-5 (Gallegos). LANL's proposal subdivides existing Section 128 segments and moves newly identified perennial portions to Section 126. This move between recognized classified segments (*i.e.*, "reclassification") results in increased aquatic life use protections for those waters because Section 126 waters are subject to a coldwater aquatic life use designation, rather than the limited aquatic life use designation

applicable to Section 128 waters, and no other use designations would be changed. *See* 20.6.4.128 NMAC; **LANL Ex. 3** at 19 (Gallegos Direct); Hrg. Tr., Vol. IV, 1349:9-1350:6 (Gallegos). Since LANL's proposal increases aquatic life use protections for these waters, no UAA would be required. 40 C.F.R. § 131.10(k)(2); **LANL Ex. 3** at 19 (Gallegos Direct); **NMED Ex. 4** at 13 (Fullam Direct). Regarding recreational use protection, both segments are secondary contact and NMED's 2007 UAA already supports that recreational use designation under both Section 126 and Section 128. 20.6.4.126 NMAC; 20.6.4.128 NMAC; *see* **LANL Ex. 18** (NMED UAA, 2007); Hrg. Tr., Vol. IV, 1083:17-1084:2 (Meyerhoff); *see* Hrg. Tr., Vol. IV, 1307:23-1308:21 (Fullam) (acknowledging the Commission adopted secondary contact use designations for Section 126 and Section 128 waters). NMED provided no new information in this Triennial Review process to warrant a change in recreational use designation for LANL waters. Hrg. Tr., Vol. IV, 1308:22-1309:2 (Fullam); Hrg. Tr., Vol. IV, 1339:5-7 (Gallegos).

LANL's proposal to reclassify intermittent portions of S-Site canyon from monitoring well MSC 16-06293 to Martin Spring and intermittent portions of Twomile canyon from stream gage E244 to upper Twomile canyon under proposed new Section 140 is also supported by substantial, credible scientific evidence. This evidence includes HP Level 1 and Level 2 assessments, stream gage data, benthic invertebrate data, and photographs. **LANL Ex**. **3** at 28-31 (Gallegos Direct); **LANL Ex. 59** at 25-31 (Gallegos Rebuttal); **LANL Ex. 60** at 6-15 (Goering Rebuttal); Hrg. Tr., Vol. IV, 1343:12-1344:10 (Gallegos); *see* **LANL Exs. 41-42** (Data Compilations of S-Site Canyon and Twomile Canyon). For its part, NMED agrees that the data support classification of the intermittent portions of S-Site canyon from monitoring well MSC 16-06293 to Martin Spring and intermittent portions of Twomile canyon from stream gage E244 to upper Twomile canyon under Section 140. *See* **NMED Ex. 110**. However, NMED proposes to also include Effluent Canyon

and Twomile canyon *below* stream gage E244 within Section 140. As LANL's technical witnesses explained, the credible scientific data do not support the inclusion of these additional reaches within Section 140 at this time. Hrg. Tr., Vol. IV, 1343:12-1344:6 (Gallegos); Hrg. Tr., Vol. IV, 1363:11-1364:14 (Goering); *see infra*, Discussion, Part I.E.

C. NMED Wrongly Alleges Section 128 Waters Found to Have Perennial Characteristics Cannot be Moved to Section 126 Because They Have Been "Automatically Declassified" to Section 99

NMED has recently taken the position that the newly identified perennial portions of Section 128 waters cannot be moved to Section 126 because, allegedly, the waters have already been automatically, administratively declassified and fall within section 20.6.4.99 NMAC ("Section 99"), which is the catch-all section for unclassified perennial waters of the State. *See* **NMED Ex. 4** at 46-48 (Fullam Direct). NMED asserts that the waters cannot be moved from Section 99 to Section 126 without conducting a UAA. *See* **NMED Ex. 109** at 68 (Fullam Rebuttal). NMED's position is wrong and troublesome for several reasons.

i. The Commission Has Made No Determination to Declassify Section 128 Waters

NMED ignores the fact that the Commission has made no determination to declassify any Section 128 waters. Surface waters of the State cannot be declassified, and their designated uses changed, without a Commission decision. NMSA 1978, § 74-6-3(E); 20.6.4.7(C)(3) NMAC. NMED's witness acknowledged this fact during the hearing. *See* Hrg. Tr., Vol. IV, 1309:3-9 (Fullam) (acknowledging that a change in a designated use "requires a Commission decision"). It is undisputed that the reaches LANL proposes to move from Section 128 to Section 126 were classified by the Commission under Section 128 during the 2003 Triennial Review. **LANL Ex. 2** at 8-14 (Meyerhoff Direct); **LANL Ex. 23** (excerpt of Fisher Direct Testimony, Triennial Review Public Hearing (October 31, 2003)). The 2007 UAA that NMED prepared to support the

Commission's adoption of Sections 128 and 126 reflects this fact. *See* **LANL Ex. 18** at 9 (NMED 2007 UAA) (Attachment 2 - Map showing the classification of all LANL waters under either Section 128 or Section 126, including the short additional specific segments under consideration); *see also* Hrg. Tr., Vol. IV, 1326:5-1327:18 (Meyerhoff).[6] Yet, during this Triennial Review, NMED alleges that previously classified Section 128 waters have been declassified to Section 99, based upon NMED staff's evaluation of select data collected under the 2015 Joint Stipulation. *See* Hrg. Tr., Vol. IV, 1319:16-24 (Fullam) ("those [waters] were previously assumed to have been in Section 128, but then new information indicated that they were perennial and therefore not classified in [Section] 128.").

In reaching this conclusion, NMED skips a necessary step. NMED cannot unilaterally declassify previously classified waters without a Commission decision. The whole purpose of the Triennial Review is for the Commission to consider whether to adopt changes to the State's Standards, including changes to the classification of surface waters, based upon credible scientific data and other evidence. NMSA 1978, § 74-6-4(D). LANL has adhered to that proper process, and has presented data and information to the Commission demonstrating that Section 126 should be extended by including certain waters currently classified under Section 128. NMED's approach, in contrast, completely omits the Commission's role as decision-maker. Hrg. Tr., Vol. IV, 1111:16-1112:2 (Gallegos) ("NMED's approach to this process omits the [Commission] as decision-maker."). Under NMED's approach, classified waters of the State can apparently be declassified solely by NMED staff, behind closed doors, without any input from the Commission

[6] Moreover, as LANL's technical witness demonstrated during the hearing, NMED's Surface Water Quality Information Database ("SQUID") also depicts these waters as currently classified under Section 128 (at least through early 2021). Hrg. Tr., Vol. IV, 1346:7-1347:10 (Gallegos).

or interested parties. The NMED approach violates the WQA and must be rejected by the Commission.

Furthermore, not only is NMED's approach an overreach of staff authority, "but it also upends regulatory certainty and renders the process of WQCC classification of waters meaningless." *See* **LANL Ex. 59** at 17 (Gallegos Rebuttal). Under NMED's approach, there is no required mechanism for informing a regulated entity as to whether NMED has declassified previously classified waters, thereby potentially subjecting the regulated entity to new water quality standards and criteria without their knowledge. Indeed, it was not until the middle of this Triennial Review that NMED made clear to LANL that certain LANL waters had—at some prior time—been declassified in the opinion of NMED staff. Hrg. Tr., Vol. IV, 1311:11-21 (Fullam) (stating that LANL was advised sometime after March 2021). At a minimum, to preserve regulatory certainty, "NMED should not be permitted to move any water classified by the Commission from its classified segment to an unclassified segment without Commission review and approval for each such move." *See* **LANL Ex. 59** at 17 (Gallegos Rebuttal).

ii. NMED's Proposal Contravenes the Classification Scheme for LANL Waters that the Commission Adopted During the 2003 Triennial Review

NMED's contention that portions of Section 128 have been automatically declassified to Section 99 also "contravenes the WQCC's classifications scheme for LANL waters." **LANL Ex. 59** at 15 (Gallegos Rebuttal). During the 2003 Triennial Review, the Commission adopted two sections into which it sorted all surface waters located within LANL: Section 126 for perennial waters as identified at that time and Section 128 for ephemeral and intermittent waters. *See* **LANL Ex. 16** at 58, ¶ 235 (2003 Triennial Review Hearing Officer's Report, Statement of Reasons (May 13, 2005) (establishing LANL waters classifications); **LANL Ex. 2** at 8-14 (Meyerhoff Direct); **LANL Ex. 23** (excerpt of Fisher Direct Testimony, Triennial Review Public Hearing (October 31,

2003)); s*ee also* Hrg. Tr., Vol. IV, 1329:2-25 (Meyerhoff) ("[T]he intent was that all waters on LANL property were being classified under these two sections"). That classification scheme was supported by NMED, approved by EPA, and then re-affirmed by the Commission during subsequent Triennial Reviews. *See* **LANL Ex. 19** (EPA Approval to NMED Revisions, 2007); **LANL Ex. 2** at 14-17 (Meyerhoff Direct); **LANL Ex. 26** (Excerpt of EPA Record of Decision on the 2009 Triennial Review reaffirming approval of the 2007 UAA); **LANL Ex. 58** at LANL-01084 (Meyerhoff Rebuttal); Hrg. Tr., Vol. IV, 1326:5-18 (Meyerhoff).

LANL's proposal in this Triennial Review adheres to the Commission's classification scheme for LANL waters. Where new data demonstrates that certain Section 128 segments contiguous to Section 126 segments have perennial characteristics, those perennial reaches should be placed into the classification that the Commission created for perennial waters within LANL. This approach is logical. *See* Hrg. Tr., Vol. IV, 1093:3-18 (Meyerhoff) ("The same uses would apply because they're contiguous. There's no expectation the uses would be any different when they're that close together . . . they're in the same watershed, they're actually connected to one another."). Even NMED's witness acknowledged that "a designated use for a water may be amended, and if there is an established Section in 20.6.4 NMAC that has the appropriate designated uses within the applicable geographical location, the water may be listed in that classified section of 20.6.4 NMAC." NMED Ex. 109 at 38, lines 13-16 (Fullam Rebuttal); *see* Hrg. Tr., Vol. IV, 1092:9-1093:11 (Meyerhoff). Certainly, reaches contiguous to an existing section should be considered within the "applicable geographical location."

NMED's approach would result in the application of designated uses for these waters that are inappropriate, less protective aquatic life use, and unsupported by NMED's 2007 UAA. Section 99 waters have designated uses protecting warmwater aquatic life, livestock watering,

wildlife habitat, and primary contact recreation. *See* 20.6.4.99 NMAC. Therefore, under NMED's approach, the newly identified short perennial portions of Section 128 would be subject to a less protective warmwater aquatic life use under Section 99, rather than the more protective coldwater aquatic life use under Section 126. *See* 20.6.4.126 NMAC; Hrg. Tr., Vol. IV, 1414:2-7 (Gallegos). Further, NMED's 2007 UAA demonstrates that secondary contact, not primary contact, is the appropriate recreational use for all waters classified under Section 126 and Section 128. **LANL Ex. 18** (NMED UAA, 2007); Hrg. Tr., Vol. IV, 1083:17-1084:2 (Meyerhoff) ("[The 2007 UAA] includes an analysis of the flow conditions, which is appropriate to look at whether or not the use can actually be attained, in this case swimming. And the conclusion was the waters were too low in depth, and such you could not do primary contact recreation."); Hrg. Tr., Vol. IV, 1086:11-15 (Meyerhoff) ("[I]t is clear [that] secondary contact remains the appropriate designated use for waters on LANL property."). NMED provided no evidence to show that primary contact can actually be attained. Hrg. Tr., Vol. IV, 1086:15-18 (Meyerhoff). Indeed, as NMED acknowledged, it provided no new information in this Triennial Review process to warrant a change in recreational use designation for LANL waters. Hrg. Tr., Vol. IV, 1308:22-1309:2 (Fullam). Nor did NMED provide a consistent technical basis or support for automatic declassification. Hrg. Tr., Vol. IV, 1107:10-12 (Gallegos). Yet, by automatically declassifying Section 128 waters to Section 99 by administrative action, NMED's approach would apply a primary contact designated use to these waters, even though NMED's own analysis demonstrates that use is not appropriate. As LANL's technical witness, Dr. Richard Meyerhoff, testified during the hearing, NMED's approach "makes no sense," and it should be rejected by the Commission. Hrg. Tr., Vol. IV, 1329:22-25 (Meyerhoff).

iii. <u>NMED's Proposal Also Contradicts the Purpose of the 2015 Joint Stipulation</u>

Under the 2015 Joint Stipulation, Amigos Bravos, DOE, Los Alamos National Security LLC and NMED agreed to work together, collaboratively, to collect data and evaluate the appropriate water quality protections for LANL waters currently classified under Section 128. *See* **LANL Ex. 29** ("2015 Joint Stipulation"). Consistent with that agreement, LANL worked with NMED and Amigos Bravos to collect water quality data for Section 128 segments and, based on that data, has proposed that the Commission increase protections for certain Section 128 waters by moving them to Section 126. **LANL Ex. 3** at 4-5 (Gallegos Direct); **LANL Ex. 36** (Chronology of Activities Completed under the 2015 Joint Stipulation); Hrg. Tr., Vol. IV, 1336:6-15 (Gallegos).

NMED's approach is inconsistent with both the terms and intent of the 2015 Joint Stipulation. Rather than evaluating the water quality within Section 128 based on all the available scientific evidence, NMED has disregarded credible scientific data collected in accordance with the 2015 Joint Stipulation that supports classification of these waters under Section 126. *See* Hrg. Tr., Vol. IV, 1136:15-22, 1138:9-13 (Gallegos) (explaining NMED did not consider all the available data collected pursuant to the 2015 Joint Stipulation).[7] And rather than working collaboratively with LANL and Amigos Bravos to determine the appropriate protections for Section 128 waters, NMED asserts that Section 128 waters default to Section 99 (*i.e.*, are "declassified") based upon evaluation of limited data. Worse still, this approach leaves these waters of the State *less* protected, subject to a warmwater aquatic life use under Section 99 rather than the coldwater aquatic life use it would have under Section 126. It also ignores the Commission's prior determination that LANL waters cannot attain primary contact, based on

[7] NMED argued during the hearing that HP assessments conducted without the presence of NMED staff should not be considered in determining whether to reclassify waters under Section 126. However, LANL's witnesses, Mr. Gallegos, testified under oath that "[a]ll HP assessments were conducted following the same approved procedures whether NMED staff participated or not." **LANL Ex. 3** at 5 (Gallegos Direct). Accordingly, the data and information collected by LANL's professional environmental staff pursuant to the 2015 Joint Stipulation and in accordance with NMED's procedures outlined in the Hydrology Protocol are credible and should have been considered by NMED, regardless of whether Department staff were personally involved in the collection of that data and information.

NMED's own 2007 UAA. It would be difficult to imagine a less collaborative or integrated proposal.

iv. NMED's Reliance on an Illustrative Flowchart in the WQMP/CPP is Not Supported

NMED also alleges that its proposal to declassify certain Section 128 classified waters to default Section 99 is required, not by a regulation, but by a flowchart embedded within the WQMP/CPP. This is not accurate. The illustrative flowchart to which NMED refers on its face states that it merely depicts "the *primary pathways* to determining or amending the applicable water quality standards based upon . . . Hydrology Protocol results." **LANL Ex. 70** at II-8 **(**WQMP/CPP, Figure II-1); Hrg. Tr., Vol. IV, 1143:5-12 (Meyerhoff) (emphasis added). The flow chart does not confer NMED with any authority to declassify previously classified waters without the Commission's consideration. *See* Hrg. Tr., Vol. IV, 1148:1-4 (Meyerhoff) (testifying that the flow chart in the WQMP/CPP "just shows a process" but that "if there's a proposal to change 20.6.4 NMAC, it goes before the Commission."). Nor does the flow chart prevent the Commission from adopting LANL's more logical proposal to reclassify those portions of Section 128 waters discovered to be perennial under Section 126—the section the Commission already adopted for perennial waters within LANL.

The Commission should reject NMED's assertion that an illustrative flowchart in the WQMP/CPP requires the automatic declassification of previously classified waters of the State. In addition, the Commission should consider adopting LANL's proposed amendments to the flowchart, which clarify its purpose and effect in a future amendment to the WQMP/CPP. *See* **LANL Ex. 78** (LANL's Recommendations to Flow Chart). LANL's recommended revisions to the flowchart preserve the classified status of LANL and other classified waters throughout the State and would avoid unnecessary UAA procedures, while incorporating processes required by

40 C.F.R. § 131.10(k). For purposes of this Triennial Review, the Commission should make clear that the flowchart is illustrative and does not alter any requirement for Commission approval of a change in designated use.

D. The Commission Should Adopt LANL's Proposed Language Clarifying that Section 126 Is the Correct Classification for Perennial Waters within Laboratory Property Boundaries

The Commission can easily prevent disputes regarding the appropriate classification of perennial LANL waters by adopting LANL's proposal to add language to Section 126 clarifying that all "[p]erennial waters within lands managed by the U.S. Department of Energy (DOE) within Los Alamos National Laboratory (LANL)," are classified under Section 126, "including but not limited to," the stream segments that are specifically identified within the section. **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC). With this amendment, when new information demonstrates that waters currently classified under Section 128 have perennial characteristics, there will be no dispute as to whether those perennial waters can be properly reclassified in Section 126 by the Commission. *See* Hrg. Tr., Vol. IV, 1335:11-16, 1351:12-24 (Gallegos) (testifying that LANL's proposed revisions will "provide greater flexibility" for the Commission and prevent future disputes as to whether perennial waters identified within LANL are encompassed by Section 126). Furthermore, the addition of the language "including but not limited to" within Section 126, will match the language already used in Section 128, and will more accurately reflect the Commission's prior classification of all LANL waters during the 2003 Triennial Review. *See See* Hrg. Tr., Vol. IV, 1329:1-5 (Meyerhoff) ("[T]he intent was that all waters on LANL property were being classified under these two sections").

E. Additional Study is Needed for Effluent Canyon and Twomile Canyon Below Stream Gage E244

With respect to NMED's proposed new Section 140, both NMED and LANL agree that the following segments should be classified under that section, with designated uses for livestock watering, wildlife habitat, marginal warmwater aquatic life, and secondary contact recreation: (1) Twomile Canyon from LANL stream gage E244 upstream to its confluence with upper Twomile Canyon; and (2) S-Site Canyon from alluvial groundwater well MSC 16-06293 upstream to Martin Spring. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); *see also* Hrg. Tr., Vol. 1361:10-22 (Goering) (concluding that "there is a strong technical basis to support classification" of the above described segments "under proposed . . . Section 140"). NMED proposes, however, to include two additional reaches under Section 140: Effluent Canyon and Twomile canyon *below* stream gage E244. *See* **NMED Ex. 110** (NMED's Revised Proposed Amended Rule). The Commission should not include these additional reaches within Section 140 at this time, as the available data indicates that classification under Section 140 may not be supported and additional study is needed.

As demonstrated by LANL's technical witnesses, stream gage E244 is the appropriate terminus for the segment of Twomile canyon included in Section 140. *See* Hrg. Tr., Vol. IV, 1343:12-1344:10 (Gallegos); Hrg. Tr., Vol. IV, 1362:11-1363:9, 1368:14-1369:5 (Goering); **LANL Exs**. **40, 41, 42** (supporting data). HP Level 1 and Level 2 information do not justify classification of Twomile canyon below stream gage E244. **LANL Ex. 4** at 34 (Goering Direct); **LANL Ex. 59** at 26-27 (Gallegos Rebuttal); **LANL Ex. 60** at 14 (Goering Rebuttal). The reach below gage E244 has ephemeral flow characteristics, not intermittent flow characteristics, as required for classification under proposed Section 140. *See* Hrg. Tr., Vol. IV, 1368:14-1369:5 (Goering) (concluding that E244 represents a "transition point between ephemeral and intermittent

based on the flow characteristics" and that "there are a variety of lines of evidence that suggest that termination of the proposed 140 reach should end at E244."). Further, no benthic organisms were observed. Hrg. Tr., Vol. IV, 1344:3 (Gallegos).

Classification of Effluent Canyon under proposed Section 140 is also not supported at this time. LANL's evaluation of additional data in the context of considering NMED's direct testimony revealed that the water quality in Effluent Canyon may not support Section 140's marginal warmwater aquatic life use designation. *See* **LANL Ex. 60** at 6-15 (Goering Rebuttal); Hrg. Tr., Vol. IV, 1363:11-1364:14 (Goering) ("based on my evaluation of additional data in response to [NMED's] direct testimony regarding Section 140, the proposed classification of the stream reach in Effluent Canyon under Section 140 is premature and requires additional study."). Specifically, the data show that pH and dissolved oxygen levels necessary to sustain marginal warmwater aquatic life may not be met in Effluent Canyon. NMED acknowledged during the hearing that it "inadvertently overlooked" this water quality data demonstrating that the marginal warmwater aquatic life use designation may not be appropriate. Hrg. Tr., Vol. IV, 1297:21 (Fullam). Accordingly, until additional study is conducted for Effluent Canyon, the Commission should not adopt NMED's proposal to reclassify the canyon under proposed Section 140.

II. THE PROCESS FOR REVIEWING AND AMENDING THE WATER QUALITY STANDARDS

A. The Standards Should Include a Process for Determining Existing Uses and More Protective Designated Uses

During each Triennial Review New Mexico must:

> re-examine any waterbody segment with water quality standards that do not include the uses specified in section 101(a)(2) of the Act every 3 years to determine if any new information has become available. If such new information indicates that the uses specified in section 101(a)(2) of the Act are attainable, the State shall revise its standards accordingly. Procedures States establish for identifying and reviewing

> water bodies for review should be incorporated into their Continuing Planning Process.

40 C.F.R. § 131.20(a). And when adopting new or revised designated uses other than the uses specified in CWA Section 101(a)(2), or removing designated uses, New Mexico must submit documentation justifying consideration of the use and value of water for the use that appropriately supports the State's action. 40 C.F.R. § 131.10(a). However, neither of these federal provisions establishes what information must be developed to support these use decisions nor what procedure to apply.

The Standards identify the procedures to conduct a UAA and remove a designated use that is not an existing use in 20.6.4.15 NMAC. Under the WQS, a proponent may also use this process to reclassify a water to assign a more protective use. Aside from a UAA process, the process and evidentiary requirements to reclassify a water to assign a more protective designated use or establish an existing use are not set out in the Standards and remain unclear. **LANL Ex. 2** at 25 (Meyerhoff Direct); *see* Hrg. Tr., Vol. III, 928:25-929:4 (Aranda) (confirming "there are no regulations prescribing how a state determines existing uses."). During this Triennial Review, for the first time and without any established process in the WQS, NMED applied an "existing use demonstration" to re-examine secondary contact recreational uses for certain water bodies and to re-examine aquatic life uses for certain waters within LANL. **NMED Ex. 56** (Recreational EUA) and **NMED Ex. 73/Ex. 124** (LANL EUA). The process NMED used to develop these existing use demonstrations was unclear and did not involve stakeholder participation. Indeed interested LANL stakeholders were not provided a copy of the LANL EUA, **NMED Ex. 73,** until May 3, 2021, when NMED filed its pre-filed direct testimony with NMED's Notice of Intent to Present Technical Testimony ("NMED NOI") in this the Triennial Review. Hrg. Tr., Vol. IV, 1316:19-22 (Fullam). LANL was not provided an opportunity to comment on **NMED Ex. 73** or the data

NMED relied on to support it until LANL filed its pre-filed rebuttal testimony in the Triennial Review proceedings. Hrg. Tr., Vol. IV, 1316:23-1317:8 (Fullam); *see* Hrg. Tr., Vol. IV, 1115:4-15 (Gallegos). Consequently, LANL had no opportunity to raise data quality concerns with NMED concerning Effluent Canyon (among other data relied on in **NMED Ex. 73**) and NMED acknowledged that it "inadvertently overlooked" this water quality data demonstrating that the marginal warmwater aquatic life use designation may not be appropriate. Hrg. Tr., Vol. IV, 1297:21 (Fullam). These existing use demonstration efforts and NMED's associated testimony demonstrate the critical need for the Commission to formally adopt procedures either in the Standards or the WQMP/CPP.

i. Existing Uses Must Be Established With a High Degree of Confidence

The Water Quality Standards have three basic parts: (i) the use; (ii) the criteria to protect that use; and (iii) the antidegradation policy and methods to implement the policy to protect the use and avoid water quality degradation. 40 C.F.R. §§ 131.6, 131.10-131.12; Hrg. Tr., Vol. III, 920:17-921:22 (Aranda); Hrg. Tr., Vol. IV, 1134:15-20 (Meyerhoff). Under the antidegradation policy, once an existing use is established, the level of water quality necessary to protect and maintain that existing use must be maintained. 40 C.F.R. § 131.12(a)(1); 20.6.4.8(A)(1) NMAC; Hrg. Tr., Vol. III, 920:17-21 (Aranda). This is so because once established, an existing use cannot be removed, unless a use requiring more stringent criteria is added, regardless of whether the existing use remains attainable. 40 C.F.R. § 131.10(h)(1); 20.6.4.15(A)(2) NMAC; **LANL Ex. 2** at 24, 29 (Meyerhoff Direct); **LANL Ex. 32** at LANL-00571; **NMED Ex. 62**, Attachment at 5 (Response to Question No. 3) (EPA's "Smithee Letter").

For these reasons, it is critical "to get uses right" and "essential to informed decision making" that the use designations "reflect the best data and information." **LANL Ex. 33** at 2 (2006 EPA Memorandum); **LANL Ex. 2** at 26 (Meyerhoff Direct). EPA noted that States should have

a clear process for establishing uses and water quality standards and that it is "critical" "to engage the public in meaningful discussions regarding the importance and value of getting uses right in maintaining and restoring water quality." **LANL Ex. 33** at 2 (2006 EPA Memorandum). EPA further advised that "public understanding and acceptance of WQS is central to broader community support for addressing potentially difficult pollution control management decision." *Id.* EPA amended its Water Quality Standards regulations (40 C.F.R. Part 131) in 2015 to "provide clearer expectations for when an analysis of use attainability of designated uses is or is not required" and to allow for "better and more transparent communication among EPA, states, authorized tribes, stakeholders and the public about the designated use revision process." **LANL Ex. 31** at 51,021 (EPA 2015 amended WQS Regulations); **LANL Ex. 2** at 27-30 (Meyerhoff Direct).

ii. Uses Should Be Determined Based Upon Actual Use and Water Quality

Starting with the definition of existing use, EPA has provided detailed guidance about the data and information needed to support State determinations. Existing uses are those uses that are actually attained. 40 C.F.R. § 131.3(e); 20.6.4.7(E) NMAC; **LANL Ex. 32**, Attachment at 1 (EPA "Smithee Letter"); **LANL Ex. 58** at LANL-01086 (Meyerhoff Rebuttal); **LANL Ex. 67** at 9 (EPA Water Quality Standards Handbook, Chapter 2); Hrg. Tr., Vol. III, 920:10-14 (Aranda). In the EPA "Smithee Letter," EPA stated its expectations for how a State should determine the existing uses for a water body. A State "should determine existing uses on a site-specific basis to ensure it has identified the highest degree of uses and water quality necessary [to protect] the uses." **LANL Ex. 32** at LANL-00568 (EPA "Smithee Letter"); **LANL Ex. 2** at 29 (Meyerhoff Direct).

When describing existing uses, EPA envisions a two-part approach. Specifically, "states and tribes should articulate not only the use(s) that has been achieved, but also the water quality supporting the specific use(s) that have been achieved." **LANL Ex. 2** at 29 (Meyerhoff Direct) (emphasis added), *citing* **LANL Ex. 32** at LANL-00569 (EPA "Smithee Letter"). "It is appropriate

to describe the existing uses of a waterbody in terms of both actual use and water quality because doing so provides the most comprehensive means of describing the baseline conditions that must be protected." **LANL Exhibit 32** at LANL-00571 (EPA "Smithee Letter"); **LANL Exhibit 2** at 29 (Meyerhoff Direct); **LANL Ex. 58** at LANL-01112 (Meyerhoff Rebuttal). Thus, an existing use evaluation should include both an evaluation of the use of the water (*e.g.*, its purpose such as swimming) and of the water quality necessary to support the use. Hrg. Tr., Vol. IV, 1071:17-24 (Dail); Hrg. Tr., Vol. IV, 1082:13-16 (Meyerhoff).

EPA has elaborated on how States should evaluate each of these two elements. With regard to the actual use, EPA has provided clear guidance that the State should document whether the water is, and can be, actually used for the proposed purpose. **LANL Exhibit 32** at LANL-00568 - 00569 (EPA "Smithee Letter"); **LANL Ex. 58** at LANL-01087 (Meyerhoff Rebuttal); *see* Hrg. Tr., Vol. IV, 1097:21-23 (Meyerhoff). To make the recommended site-specific use determination, documentation should include a site visit to determine if the use is occurring. Hrg. Tr., Vol. IV, 1128:9-1129:5 (Meyerhoff). Secondary source information would not be considered sufficient. Hrg. Tr., Vol. IV, 1129:20-22 (Meyerhoff). While EPA provides States some flexibility where data or information is not available, it does expect States to "consider the quantity, quality, and reliability of the different types of available data to describe the existing use as accurately and completely as possible." **LANL Ex. 32** at LANL-00569 (EPA "Smithee Letter"); **LANL Ex. 58** at LANL-01087 (Meyerhoff Rebuttal). Choosing not to conduct a site visit does not make data unavailable, however. Hrg. Tr., Vol. IV, 1130:23-1131:1 (Meyerhoff).

EPA has also included a critical qualifier, that the State should determine whether water quality is suitable to allow the use to be attained "unless there are physical problems, such as substrate or flow, that prevent the use from being attained." *See* **LANL Ex. 75** at 4 (EPA Water

Quality Standards Handbook, Chapter 4: Antidegradation); **LANL Ex. 58** at LANL-01109 (Meyerhoff Rebuttal). EPA recognizes that a water body may have excellent water quality and still not be able to use the water body in certain ways, such as not being able to physically swim where there is insufficient water. **LANL Ex. 58** at LANL-01109 (Meyerhoff Rebuttal); *see* 40 C.F.R. § 131.10(g).

Regarding documentation of water quality, how the water quality is evaluated is also important. EPA 2012 Recreational Water Quality Criteria Guidance includes evaluation of three components: magnitude, duration, and exposure. **LANL Ex. 58** at LANL-01096-01098 (Meyerhoff Rebuttal); **LANL Ex. 68** at 40 (EPA 2012 Recreational Water Quality Criteria Guidance); Hrg. Tr., Vol. IV, 1084:22-1085:2 (Meyerhoff). The Department has established procedures for assessing water quality standards attainment under the Comprehensive Assessment and Listing Methodology ("CALM") for purposes of the CWA § 303(d)/§ 305(b) Integrated report. *See* **LANL Ex. 69** at 31 (NMED CALM Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d)/§305(b) Integrated Report) ("NMED CALM Guidance"); **LANL Ex. 58** at LANL-01098 (Meyerhoff Rebuttal). The Commission should adopt CALM requirements as the minimum data threshold to document water quality for an existing use analysis. **LANL Ex. 58** at LANL-01098 (Meyerhoff Rebuttal); Hrg. Tr., Vol. IV, 1085:4-19 (Meyerhoff).

B. Neither of NMED's "Existing Use Demonstrations" Meets EPA Requirements and Neither Should Be Adopted by the Commission

i. The Recreational Existing Use Demonstration Applicable to Selected State Waters Is Flawed

NMED's Existing Use Analysis of Recreational Uses for Classified Waters 20.6.4.101-20.6.4.899 NMAC, **NMED Ex. 56** (Recreational EUA) is flawed for a number of reasons. Of greatest concern to LANL is that NMED is proposing to modify the applicable recreational use

from secondary contact to primary contact on in Section 103, 116, 204, 206 and 207 waters based solely on a review of available water quality data for *Escherichia coli* ("*E. coli*"), pH, or both. NMED considered this same approach when evaluating the existing recreational use for waters on LANL property, but because no water quality data were available, no change in recreational use was proposed during the Triennial Review. **LANL Ex. 58** at LANL-01083 (Meyerhoff Rebuttal). However, NMED stated that it would investigate the secondary contact designation for LANL Section 126 and 128 waters under a separate UAA, as appropriate. **NMED Ex. 56** at 37 (Recreational EUA). Those comments and the shortcomings of the process NMED applied in developing the Recreational EUA are sufficiently concerning to warrant these comments and Commission rejection of **NMED Ex. 56** (Recreational EUA).

Specifically, NMED's approach was unclear, it included limited engagement with stakeholders, and relied almost exclusively on water quality to amend recreational use from secondary to primary. *See* Hrg. Tr., Vol. IV, 1208:3-8 (DeRose-Bamman). While each of these shortcuts is problematic, the last is of greatest concern to LANL. As LANL's expert, and former water quality program regulator, Dr. Meyerhoff testified "NMED is proposing that considerations regarding the actual use of the water (*e.g.*, swimming or wading) either need not be evaluated at all, or can be determined based on anecdotal information and not waterbody-specific data. NMED's proposed approach is contrary to the intent of the federal law." **LANL Ex. 58** at LANL-01085 (Meyerhoff Rebuttal).

The definition of existing use focuses on "use" to mean a use that is actually being attained. 40 CFR § 131.3(c); 20.6.4.7(E)(4) NMAC; **LANL Ex. 67** at 1 **(**EPA Water Quality Standards Handbook, Chapter 2); **LANL Ex. 31** at 51,027 (EPA 2015 amended WQS Regulations). And, as noted above, EPA has clearly directed that States are to consider both use and water quality.

LANL Ex. 32 at LANL-00567, **NMED Ex. 62** (EPA "Smithee Letter"). While EPA recognizes that all the necessary data may not be available, "EPA expects states and tribes to consider the quantity, quality, and reliability of the different types of available data to describe the existing use as accurately and completely as possible." **LANL Ex. 32** at LANL-00569; **NMED Ex. 62** (EPA "Smithee Letter"); **LANL Ex. 58** at LANL-01087 (Meyerhoff Rebuttal).

To meet site-specific use determination requirements, a site visit is critical. Hrg. Tr., Vol. IV, 1128:9-18 (Meyerhoff). Yet, that was not done in the context of the Recreational EUA. Rather, NMED used secondary sources such as promotional brochures. *Id.* at 1129:8-22. Though NMED witness testified that NMED had conducted site visits to the evaluated locations, those visits occurred years ago and were for the collection of water quality data, not to evaluate actual uses. Hrg. Tr., Vol. IV, 1130:7-19 (Meyerhoff). Thus, there is no contemporary evaluation of actual, attained use to support NMED's Recreational EUA, **NMED Ex. 56**. Evidence of primary contact use is not "unavailable" simply because NMED elected not to conduct a site visit. Hrg. Tr., Vol. IV, 1130:23-1131:1 (Meyerhoff). The requisite high degree of confidence threshold is not reached without an evaluation of the actual use of the water—yet this is the approach NMED took in **NMED Ex. 56**. **LANL Ex. 58** at LANL-01089 (Meyerhoff Rebuttal); Hrg. Tr., Vol. IV, 1127:12-23 (Meyerhoff).

As a further critical flaw in the NMED Recreational EUA, NMED did not apply data quality rigor to its evidence that water quality criteria support primary recreational use. NMED's recreational existing use proposal is based on as few data as a single sample result. **NMED Ex. 3** at 12 (Aranda Direct) ("If the waterbody segment contained at least one *E. coli* sample result equal to or less than 410 cfu/100 mL, then the existing use was determined to be at least primary

contact.").[8] A single data point may address magnitude, but does not meet the EPA 2012 guidance also requiring evaluation of duration and frequency. **LANL Ex. 68** at 40 (EPA 2012 Recreational Water Quality Criteria Guidance); *see* **LANL Ex. 58** at LANL-01096-01098 (Meyerhoff Rebuttal); Hrg. Tr., Vol. IV, 1084:22-1085:2 (Meyerhoff). Reliance on a single data point (or even three samples per NMED hearing testimony), does not meet NMED's procedures for assessing water quality standards attainment established under CALM for use in the preparation of its CWA § 305(b)/303(d) Integrated report. *See* **LANL Ex. 69** at 31 (NMED CALM Guidance); **LANL Ex. 58** at LANL-01098 (Meyerhoff Rebuttal). Under CALM, a minimum of four data points are required to assess use attainment. The CALM requirements should establish the minimum data threshold to document water quality for an existing use analysis. **LANL Ex. 58** at LANL-01098 (Meyerhoff Rebuttal); Hrg. Tr., Vol. IV, 1085:4-19 (Meyerhoff).

Given these numerous deficiencies in NMED Ex. 56, NMED's Recreational EUA is not supported by the requisite "sound scientific rationale". 40 C.F.R. § 131.11; Hrg. Tr., Vol. III, 921:9-11 (Aranda). Accordingly, the Commission should reject NMED's proposal to change recreational uses on selected waters.

ii. A Secondary Contact Recreation Use Remains Appropriate for All LANL Waters

NMED's Jennifer Fullam testified that a recreational use determination could not be made at this time for waters included in NMED's LANL EUA, **NMED Ex. 73** (LANL EUA), because no *E. coli* data were available. **NMED Exhibit 4** at 34 (Fullam Direct); **NMED Ex. 73** at 20 (LANL EUA). NMED also did not propose any change in recreational use on LANL waters in **NMED Ex. 56**. **NMED Ex. 56** at 37 (Recreational EUA). LANL agrees with that outcome on

[8] While NMED's witness testified differently at hearing, Hrg. Tr., Vol. III, 926:2-12 (Aranda), NMED did not provide a consistent technical basis, scientific data or information to support its water quality analysis proposed in **NMED Ex. 56** (Recreational EUA).

several grounds including 40 C.F.R. § 131.10(g)(2), the fact that NMED conducted a UAA supporting secondary contact that was approved by the Commission and EPA, and NMED has provided no new information to the contrary in this or any other Triennial Review. *See* **LANL Ex. 18** (2007 UAA); **LANL Ex. 26** (Excerpt of EPA Record of Decision on the 2009 Triennial Review); Hrg. Tr., Vol. IV, 1308:22-1309:2 (Fullam).

However, NMED's reliance on water quality data, alone, regarding LANL waters in **NMED Ex. 73/NMED Ex. 124** (LANL EUA) is equally flawed to its approach in the Recreational EUA, **NMED Ex. 56**. Moreover, it ignores that NMED completed a UAA on all LANL waters in 2007 that demonstrated that primary contact recreation was not an attainable use based on low flow conditions. **LANL Exhibit 2** at 16 (Meyerhoff Direct); **LANL Exhibit 18** (2007 UAA). The 2007 UAA, which was approved by the Commission and EPA (**LANL Exhibit 2** at 9-17 (Meyerhoff Direct); **LANL Exhibit 18** (2007 UAA); **LANL Ex. 19** (EPA Approval to NMED Revisions, 2007)), concluded:

> **secondary contact recreation is an existing and attainable use for the stream reaches in Segments 126 and 128.** Hydrologic modifications do not currently affect recreational opportunities, and water quality likely supports both secondary and primary contact activities. Nevertheless, **primary contact is not an attainable use because flows and water levels are generally too low for full body immersion or prolonged and intimate contact with the water.** This is the factor identified in 40 CFR 131.10(g)(2): "Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use…" **Hazardous high-flow conditions and restricted access also limit the feasibility of primary contact recreation**.

LANL Exhibit 2 at 16 (Meyerhoff Direct); **LANL Exhibit 18** at LANL-00368 (2007 UAA) (emphasis added).

NMED's 2007 UAA conclusion demonstrates that both components, actual use and water quality, were considered in 2007. During this Triennial Review, NMED presented no new evidence regarding recreational use in LANL waters. **LANL Ex. 58** at LANL-01083 (Meyerhoff

Rebuttal); Hrg. Tr., Vol. IV, 1308:22-1309:2 (Fullam). There was no evidence presented that a primary contact use can actually be attained within LANL waters. Accordingly, based upon all of the evidence presented during the Triennial Review, "it is clear that secondary contact remains the appropriate designated use for waters on LANL property." Hrg. Tr., Vol. IV, 1086:11-15 (Meyerhoff).

iii. NMED's LANL Existing Use Demonstration Is Flawed

NMED's existing use analysis demonstration document for LANL waters, **NMED Ex. 73/NMED Ex. 124** (corrected version) (LANL EUA) suffers from some of the same deficiencies as the Recreational EUA. Specifically, there was very limited stakeholder engagement, the process was unclear, and the EUA relied on non-representative data. While these are all serious concerns, LANL nonetheless agrees with a portion of NMED's recommendations in **NMED Ex. 73/NMED Ex. 124** (corrected version) (LANL EUA).[9] Specifically, LANL supports NMED's recommendations that the following segments should be classified in new Section 140, with designated uses for livestock watering, wildlife habitat, marginal warmwater aquatic life, and secondary contact recreation: (1) Twomile Canyon from LANL stream gage E244 upstream to its confluence with upper Twomile Canyon; and (2) S-Site Canyon from alluvial groundwater well MSC 16-06293 upstream to Martin Spring. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); *see also* Hrg. Tr., Vol. IV, 1361:10-22 (Goering) (concluding that "there is a strong technical basis to support classification" of the above described segments "under proposed . . . Section 140"). Contrary to NMED's proposals, LANL urges that the Commission not include two

[9] While NMED's EUA document is flawed and itself cannot serve as a credible basis for proposals to reclassify Section 128 waters to Section 140, much of the data incorporated is credible scientific data, and when combined with the additional credible scientific data presented to the Commission there is adequate basis for reclassifying specific waters from Section 128 to Section 140 given that, like the reclassification from Section 128 to Section 126, the result is an increase in protections for these waters.

additional reaches under Section 140: Effluent Canyon and Twomile canyon *below* stream gage E244, as discussed above in Section I.E and for the further reasons presented here.

NMED, LANL, and Amigos Bravos worked collaboratively under the 2015 Joint Stipulation for a number of years evaluating LANL Section 128 waters to determine if more protective uses could be attained. The very focus of this effort was to gather the scientific data and information required to effectively determine use and water quality and support more protective designated uses. 40 C.F.R. § 131.10(a); Hrg. Tr., Vol. III, 921:9-11 (Aranda). The parties used HP analyses and focused primarily on determining existing aquatic life use. *See* Hrg. Tr., Vol. IV, 1101:16-23, 1306:25-1307:13 (Fullam). Very late in the process—in October of 2020, a few months *after* NMED filed its original petition to start this 2020 Triennial Review process—NMED presented a draft existing use work plan to LANL. Hrg. Tr., Vol. IV, 1101:16-23, 1109:21-1110:4 (Gallegos). LANL had numerous concerns with the work plan, provided extensive comments, but received no response from NMED. Hrg. Tr., Vol. IV, 1110:5-17 (Gallegos).

Thereafter, LANL did not receive a copy of the LANL EUA until May 3, 2021, when NMED filed its NOI in these proceedings. Hrg. Tr., Vol. IV, 1316:19-22 (Fullam); Hrg. Tr., Vol. IV, 1110:18-22, 1115:13-1116:3 (Gallegos); *see* **NMED Ex. 73** (LANL EUA). Moreover, NMED did not communicate a clear process to LANL and LANL did not understand how its work plan comments would be integrated into that process, if at all. *See* Hrg. Tr., Vol. IV, 1111: 2-5, 1114:25-1115:10 (Gallegos). Moreover, the NMED work plan did not reflect the full content of what NMED ultimately produced as the LANL EUA. Hrg. Tr., Vol. IV, 1136:4-14 (Gallegos). LANL was not provided an opportunity to comment on **NMED Ex. 73** or the data NMED relied on to support the LANL EUA until LANL filed its written rebuttal testimony in the Triennial Review

proceedings. Hrg. Tr., Vol. IV, 1316:23-1317:8 (Fullam); *see* Hrg. Tr., Vol. IV, 1115:4-15 (Gallegos). This lack of a meaningful stakeholder process does not meet the EPA directive for a clear process with meaningful stakeholder or public discussions. **LANL Ex. 33** at 2 (2006 EPA Memorandum); **LANL Ex. 2** at 26 (Meyerhoff Direct); *see* Hrg. Tr., Vol. IV, 1110:25-1111:5 (Gallegos).

NMED did not consider all available data provided by LANL to NMED and the public. Hrg. Tr., Vol. IV, 1109:6-14, 1136:18-1137:8 (Gallegos). In particular, though LANL's professional environmental staff were trained on HP assessment procedures and conducted 47 such assessments with NMED, NMED arbitrarily refused to consider HP assessment results if NMED was not present for the assessment. **NMED Ex. 34** at 18 (NMED Draft EUA Work Plan for LANL 128 waters, October 2020) (NMED stated "Data collected under the Level 1 Hydrology Protocol survey methodology, to which NMED was not present, does not carry the same affirmations to which NMED could defend and is not being proposed for use under this analysis."); Hrg. Tr., Vol. IV, 1137:21-1138:8 (Gallegos). NMED provided no technical basis for its rejection of LANL data. Apparently, without basis, NMED simply "didn't believe that LANL's data had the right pedigree for them to consider it." Hrg. Tr., Vol. IV, 1137:9-15 (Gallegos). NMED did not try to work with LANL to verify data quality in order to enable it to use all available data. Hrg. Tr., Vol. IV, 1138:9-13 (Gallegos). Conversely, NMED relied on non-representative proxy data from E200 in Mortandad Canyon to evaluate aquatic life existing use within Effluent Canyon, even though publicly reported, existing LANL data was available for Effluent Canyon. NMED also improperly relied on grab samples to make assumptions regarding flow in Effluent Canyon. **LANL Ex. 60** at 7 (Goering Rebuttal); Hrg. Tr., Vol. IV, 1366:7-14 (Goering).

Accordingly, LANL does not currently support reclassification of Effluent Canyon in Section 140 and, instead, proposes further study. Had there been a meaningful stakeholder engagement process, LANL believes that both parties would likely have agreed that further study of Effluent Canyon was needed. Hrg. Tr., Vol. IV, 1367:13-15 (Goering). Had NMED been willing to consider all available, credible scientific data, additional segments might have been considered for reclassification to Section 140. These shortcomings provide additional support for LANL's recommendation that the Commission adopt a process to assign a more protective designated use or establish an existing use. The Commission should incorporate into the process a requirement that NMED consider all available, credible scientific data supporting the use determination.

C. Use Determinations and Amendments Must Be Made by the Commission

As demonstrated by the shortcomings of the two existing use analysis demonstration documents, **NMED Ex. 56** (Recreational EUA), **NMED Ex. 73** and **NMED Ex. 124** (LANL EUA), NMED does not have a clear process for determining existing uses or more protective designated uses. Hrg. Tr., Vol. III, 928:25-929:4 (Aranda) (confirming "there are no regulations prescribing how a state determines existing uses.") The *ad hoc* nature of NMED's existing use approach was most apparent in the context of NMED's response to the parties' identification of certain perennial characteristics in classified Section 128 waters, as described in Section I.C, above. Initially, NMED concurred with LANL's approach and proposed to reclassify certain 128 classified waters into Section 126, consistent with LANL's current proposal for 20.6.4.126 NMAC. *See* NMED's Initial Petition, filed August 19, 2020 at 20.6.4.126 NMAC (proposing to add "DP canyon, Ancho canyon, and additional perennial portions of Water canyon"). It was not

until NMED filed its Amended Petition and **NMED Ex. 9**, that LANL learned NMED had reversed its position. *See* **NMED Ex. 9** at 29 (NMED's Proposed Amended Rule – 20.6.4. NMAC).[10]

NMED now asserts that stream reaches with perennial characteristics classified by the Commission in the 2003 Triennial Review, WQCC 02-05(R), were "never classified" or were automatically declassified to 20.6.4.99 NMAC status without Commission approval upon identification of their perennial characteristics. For this "outcome," NMED seems to rely on two grounds: (i) 20.6.4.126 NMAC currently identifies a specific list of streams and stream reaches and does not have "inclusive" language such as "including but not limited to"; and (ii) the WQMP/CPP contains an illustrative flowchart, Figure II-1 (**LANL Ex. 70** at II-8 (WQMP/CPP, Figure II-1)); **LANL Ex. 59** at 18 (Gallegos Rebuttal); *see* Hrg. Tr., Vol. IV, 1143:5-12 (Meyerhoff)). The illustrative flowchart depicts that when an HP assessment of classified waters reveals conditions different than the current NMAC classification for those waters, those waters would automatically be declassified to 20.6.4.98 or 20.6.4.99 NMAC. The negative implications of, and lack of logical basis for, these assertions is comprehensively evaluated in Section I.C. The discussion here focuses on the need for a clear, Commission-adopted process for determining existing uses and more protective designated uses.

Neither of NMED's assertions "supporting" automatic declassification is based upon the requisite "credible scientific data and other evidence" to support a change in designated use. Importantly, both assertions ignore the critical role of the Commission as well as the purpose of

[10] Although not made explicit, LANL's understanding of NMED's change in position relates to a comment made by EPA on the Original Petition. LANL confirmed with legal counsel for EPA that if the Commission were to reclassify waters from Section 128 to either Section 126 or Section 140, a UAA would not in fact be required because the move to these Sections would result in more protective designated uses in both instances. EPA's comment was apparently made upon the erroneous understanding that the Commission had moved waters from Section 128 to Section 99 already, which is not the case. *See* Section I.C above.

the Triennial Review. NMED cannot automatically declassify or make any change to a designated use without the Commission's approval. *See* Section I.C., above.

NMED inconsistently acknowledged that the Commission must approve a use amendment. First, NMED acknowledged a change in designated use must come before the Commission. Then, NMED asserted that waters that have been classified under Section 128 since the 2003 Triennial Review were merely "believed to be classified," that NMED did not change the designated use, rather these waters were "never classified." Hrg. Tr., Vol. IV, 1309:3-17 (Fullam). The difficulty with this approach is that these waters *are* classified (*see* Section I.A., above) and are shown on LANL maps and, at least as recently as July 2021, in NMED's Surface Water Quality Information Database ("SQUID")) as classified under Section 128. Hrg. Tr., Vol. IV, 1346:7-1347:10 (Gallegos); *see* Hrg. Tr., Vol. IV, 1311:8-1312:13 (Fullam) (incorrectly stating that the OpenEnviroMap database was "updated"). Under an NMED automatic declassification, neither the regulated entity (in this case LANL) nor the public have any certainty about which tributaries or specific reaches—designated by starting point and terminus—might now be considered "unclassified" by NMED. And despite Ms. NMED's protestation that the designated uses have not changed (Vol. IV, 1309:13 (Fullam)), designated uses in Section 128 are different than those in 20.6.4.99 NMAC. These differences could also have permitting implications, all triggered simply by an HP assessment (*see* **LANL Ex. 70** at II-8 (WQMP/CPP, Figure II-1)), without Commission, stakeholder, or public knowledge or engagement. NMED's flowchart-driven approach ignores prior Commission decisions and EPA's clear regulatory requirement to consider actual use and water quality when changing designated uses.

The final point driving LANL's urging that the Commission formally adopt a clear process for determining existing uses and more protective designated uses is vacillation by NMED

witnesses about whether it has an existing use process currently. Ms. Fullam "recognizes the value of some general guidance when determining existing uses." **NMED Ex. 109** at 13 (Fullam Rebuttal); Hrg. Tr., Vol. IV, 1088:8-14 (Meyerhoff). She then rejects the notion that the Smithee letter requires a process specific to determining existing uses. **NMED Ex. 109** at 72 (Fullam Rebuttal). Next, Ms. Fullam states that the "Department does have a process . . . as outlined in the WQMP/CPP, as well as a clear directive in 40 CFR 131.10(i)." **NMED Ex. 109** at 72 (Fullam Rebuttal); Hrg. Tr., Vol. IV, 1088:21-25 (Meyerhoff). And asserts that the relevant process is required by federal and state regulations "dating back to at least 2005." Hrg. Tr., Vol. IV, 1304:20-1305:5 (Fullam). Conversely, Ms. Aranda acknowledged the absence of regulations prescribing a process. Hrg. Tr., Vol. III, 928:25-929:4 (Aranda); *see* **LANL Ex. 2** at 30 (Meyerhoff Direct). This testimony makes it clear that there is confusion surrounding the existing use designation process. EPA very strongly emphasizes the need for a clear process. **LANL Ex. 2** at 24-33 (Meyerhoff Direct); **LANL Ex. 31** (EPA 2015 amended WQS Regulations); Hrg. Tr., Vol. IV, 1089:13-24 (Meyerhoff). As the standards setting and use amendment process becomes more complex, it is critical for the Commission to provide clarity by adopting a state-wide process for determining existing uses and more protective designated uses. Until that time, the UAA process specified in 20.6.4 NMAC serves as the only adopted mechanism.

D. The Commission Should Adopt LANL's Proposed Five-Step Existing Use Analysis Process

LANL presented three alternative approaches for the Commission's consideration: (i) a process similar to the UAA process; (ii) a process similar to the 2015 Joint Stipulated Agreement process; and (iii) the Five-Step process outlined by LANL witnesses Dr. Meyerhoff and Mr. Gallegos. **LANL Ex. 2** at 33-35 (Meyerhoff Direct); **LANL Ex. 3** at 41-42 (Gallegos Direct); **LANL Ex. 58** at LANL-01099-LANL-01101 (Meyerhoff Rebuttal); **LANL Ex. 59** at 7-21

(Gallegos Rebuttal); Hrg. Tr., Vol. IV, 1086:20-1087:24 (Meyerhoff); Hrg. Tr., Vol. IV, 1103:5-1106:25 (Gallegos). While a UAA-type process is allowed but not required under 40 C.F.R. § 131.10(k), and may be more rigid than necessary for existing use determinations and designated use amendments, it is preferable to no process. *See* **LANL Ex. 2** at 28 (Meyerhoff Direct); Hrg. Tr., Vol. IV, 1103:5-15 (Gallegos). LANL recommended the 2015 Joint Stipulation model because it did result in collaborative development of data and information sharing. **LANL Ex. 3** at 15 (Gallegos Direct); Hrg. Tr., Vol. IV, 1104:5-1105:7 (Gallegos). However, to be fully successful, timelines should be incorporated. Hrg. Tr., Vol. IV, 1068:22-1069:14 (Dail). Even with refinements, that voluntary approach is more likely to be successful with a small group of stakeholders and may not be appropriate as a statewide model.

The Five-Step approach outlined by LANL is flexible, not prescriptive (Hrg. Tr., Vol. IV, 1090:6-9 (Meyerhoff)), and simply outlines a framework to establish the kind of process envisioned and recommended by EPA that is collaborative, driven by the best available data and information, and transparently engages with the public and stakeholders. *See* **LANL Ex. 31** (EPA 2015 amended WQS Regulations), **LANL Ex. 32** (EPA "Smithee Letter"). At a minimum, the following five steps should be included in that process:

- **Step One**—develop a Work Plan. Whether the EUA is proposed by NMED or another party, a Work Plan is required to clearly define what needs to be done and to engage other stakeholders.

- **Step Two**—implement the existing use investigation by compiling existing data, as required by the Work Plan, and collecting additional data, where necessary, to fill critical data gaps. This step shall include collection of (a) water quality data to assess attainment of the relevant water quality criteria (*e.g.*, *E. coli* and pH criteria as they pertain to recreational uses); and (b) data regarding actual attainment of the use of the water (*e.g.*, flow/depth data) to evaluate whether activities consistent with the proposed use, such as swimming for a primary contact use, are possible such that there is considerable risk of ingesting water in quantities sufficient to pose a significant health hazard.

- **Step Three**—conduct the existing use analysis (*i.e.*, determine if a higher attainable use is applicable to the waterbody). When evaluating water quality data, the thresholds for evaluating use attainment should be consistent with the State's approved CALM procedures for assessing use attainment for the purposes of preparing the biannual CWA §303(d)/§305(b) Integrated Report to EPA.

- **Step Four**—prepare and submit a petition to the Commission to modify the designated use or uses for the studied waters, if warranted by the analysis; and

- **Step Five**—if the EUA is approved by the Commission, the revised water quality standards and all supporting evidence would be submitted to the EPA Regional Administrator for review and approval. If the Commission rejects the EUA petition, then the proponents would need to determine whether to revise the petition for submittal again at a later date.

See, **LANL Ex. 2** at 33 (Meyerhoff Direct); **LANL Ex. 58** at LANL-01099-01101 (Meyerhoff Rebuttal); **San Juan Water Commission ("SJWC") Ex. 2** at 13-14 (DeRose-Bamman Direct); Hrg. Tr., Vol. IV, 1086:20-1087:24, 1090:6-1092:8 (Meyerhoff). The process should also make it clear that any use designation or use designation revision is a Commission decision. Hrg. Tr., Vol. IV, 1102:4-10 (Gallegos). Adoption of this process will lead to greater collaboration and understanding by the public and stakeholders of the water quality standards process and better decision-making.

III. COMPLIANCE WITH THE WATER QUALITY STANDARDS

A. Applicable Provisions of Law

EPA has not delegated authority to New Mexico to administer the national pollutant discharge elimination system ("NPDES") permit program, and therefore has responsibility for issuing permits under Section 402 of the federal CWA, 33 U.S.C. § 1342, for point source discharges to waters of the United States. Even without delegation, New Mexico is authorized under CWA Section 401, 33 U.S.C. § 1341, to certify that an EPA proposed NPDES permit (as proposed or with conditions) "will comply with the applicable provisions of sections 301, 302,

303, 306, and 307 of [the Clean Water Act]" and "with any other appropriate requirement of State law set forth in such certification." CWA Section 401(a)(1) & (d), 33 U.S.C. § 1341(a)(1) & (d).

Section 304(h) of the CWA requires the EPA Administrator to "promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to [CWA Section 401] or permit application pursuant to [CWA Section 402]." CWA Section 304(h), 33 U.S.C. § 1314(h). CWA Section 501(a) authorizes the Administrator to "prescribe such regulations as are necessary to carry out this function" under the CWA. Relevant here, EPA's regulations implementing CWA Sections 401 and 304(h) mandate that a permit include requirements to monitor compliance with effluent limitations "[a]ccording to sufficiently sensitive test procedures (*i.e.*, methods) ***approved under 40 CFR part 136*** for the analysis of pollutants or pollutant parameters." *Id.* The regulation provides the following explanation of "sufficiently sensitive":

> A method is sufficiently sensitive when: (1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest [Minimum Level] of the analytical methods ***approved under 40 CFR part 136*** or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter.

40 C.F.R. § 122.44(i)(1)(iv)(A)(emphasis added).

The EPA approved analytical methods for measuring regulated pollutants in wastewater are specified in 40 C.F.R. part 136 ("Part 136"). Significantly, 40 C.F.R. Section 136.1(a) <u>*requires*</u> that Part 136 approved methods, "be used to perform the measurements indicated whenever the waste constituent specified is required to be measured for: (1) An application submitted to [EPA] and/or reports required to be submitted under NPDES permits…and (3) Certifications issued by States pursuant to section 401 of the Clean Water Act (CWA), as amended." 40 C.F.R. § 136.1 and 40 C.F.R. § 403.12(b)(5)(v); *see also e.g.*, 86 Fed. Reg. 27,227 (May 19, 2021) (stating in the

purpose and summary of final rule that "[e]xamples of where these EPA-approved analytical methods *must be used* include the following: (1) Applications for NPDES permits, (2) sampling or other reports required under NPDES permits . . . (4) State CWA 401 certifications . . .") (emphasis added).

EPA periodically updates the approved methods in Part 136 through a "Methods Update Rule" ("MUR") to "reflect advances in technology, refine quality assurance and quality control requirements, and provide more choices of approved compliance monitoring methods." **LANL Ex. 7** at 8-9 (Toll Direct). The most recent Final MUR was published May 19, 2021, and went into effect on July 19, 2021. 86 Fed. Reg. 27,226-27,260 (May 19, 2021) (codified at 40 C.F.R. pt. 136); Hrg. Tr., Vol. III, 776:2-4 (Toll).[11] The new methods and modifications to existing Part 136 methods came from two major sources: (i) new or revised methods published by voluntary consensus standards bodies ("VCSBs"), such as American Society for Testing and Materials ("ASTM"), International and Standard Methods, or another government agency, such as the United States Geological Survey, "that are similar to methods previously adopted as EPA-approved methods in [C.F.R. part 136]"; and, (ii) methods EPA has reviewed and "preliminarily concluded are appropriate for nationwide use" under EPA's Clean Water Act Alternate Test Procedure ("ATP") program described at 40 C.F.R. §§ 136.4 and 136.5. **LANL Ex. 7** at 7 (Toll Direct); 86 Fed. Reg. 27,227 (May 19, 2021).

B. To Comply with Federal Clean Water Act Requirements, LANL's Proposed Amendments to Require Use of Approved 40 C.F.R. Part 136 Methods for Compliance Determinations and Section 401 State Certifications and Define "Sufficiently Sensitive" Should Be Adopted

LANL proposes to: (i) amend 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC to require the use of Part 136 approved methods for NPDES compliance determinations and CWA Section 401

[11] EPA published the final rule after LANL filed the direct testimony of Dr. Toll.

state certifications; and, (ii) incorporate the 40 C.F.R. § 122.44 definitions of "lowest minimum level" and "sufficiently sensitive" into the WQS. Hrg. Tr., Vol. III, 766 (Toll); **LANL Ex. 7** (Toll Direct); **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC).

Specifically, LANL proposes to amend 20.6.4.12(E) NMAC to replace the undefined term "minimum quantification level" with "lowest minimum level (ML) of the analytical methods approved by EPA under 40 CFR part 136 for the measured pollutant or pollutant parameter" and to add language clarifying that "in cases in which the WQCC establishes a numeric water quality criterion at a concentration that is below the ML of the EPA-approved analytical methods, the water quality standard is enforceable not at the numeric water quality criterion, but at the lowest ML of the 40 CFR part 136 approved methods." **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); **LANL Ex. 7** at 6 (Toll Direct).

LANL also proposes to amend 20.6.4.14(A) NMAC to require use of Part 136 approved methods for NPDES compliance determination and Section 401 CWA state certifications. **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); **LANL Ex. 7** at 10 (Toll Direct). Finally, LANL proposes to define "sufficiently sensitive" under 20.6.4.7(S) NMAC using the EPA definition under 40 C.F.R. § 122.44(i)(1)(iv). **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); Hrg. Tr., Vol. III, 770:9-14 (Toll); **LANL Ex. 7** at 11 (Toll Direct).

These amendments simply seek to conform New Mexico WQS requirements for analytical methods and use of analytical methods for compliance purposes to federal law. The anticipated effect of these changes is: (1) elimination of ambiguity about compliance monitoring obligations; and (2) clarification to how the Commission's numeric criteria should be applied in situations where the criterion is less than the ML of the required method. **LANL Ex. 7** at 5, 9 (Toll Direct).

In addition to achieving compliance and consistency with federal law and regulation, Dr. Toll further explained that Part 136 methods are approved through a "rigorous, inclusive process." Use of these approved methods would ensure that the required analytical methods are appropriate for use in compliance determinations and 401 certifications and that inappropriate analytic methods that do not survive the rigorous process are not used. **LANL Ex. 7** at 8 (Toll Direct) (describing regulatory history related to use of method 1668C for chlorinated biphenyl congener analysis and explaining that draft rule was not approved by EPA because "the method did not withstand the scrutiny of EPA's approval process."); Hrg. Tr., Vol. III, 775:21-776:9 (Toll).

LANL's proposal to conform New Mexico WQS requirements for analytical methods to federal law does not address analytes with no approved Part 136 method, but is entirely consistent with the EPA regulation allowing EPA or NMED to select a test method for analytes that do not have an approved Part 136 method. Hrg. Tr., Vol. III, 771:20-772:4, 777:6-16 (Toll); *see also* 40 C.F.R. § 122.44(i)(1)(iv)(B) ("Where no other EPA–approved methods exist, the Director should select a method consistent with 40 C.F.R. § 122.44(i)(1)(iv)(B)."). LANL's proposal likewise does not address or seek to impede NMED's ability to apply for approval of an alternative test method under the defined process in Part 136. Hrg. Tr., Vol. III, 772:5-14 (Toll). Finally, to be clear, LANL is only proposing to require Part 136 approved methods for NPDES compliance and Section 401 state certifications. Hrg. Tr., Vol. III, 766:7-13 (Toll). LANL's proposal in no way affects the monitoring methods that may be used for non-enforcement, or general monitoring, purposes.

The various policy arguments against adoption of LANL's proposed language are unpersuasive. As Dr. Toll testified, LANL's proposed language is required by federal law and

merely seeks to include in the Standards what is already being applied by the regulator. Hrg. Tr., Vol. III, 808:6-11 (Toll). LANL's proposal should be adopted by the Commission.

IV. TOXIC POLLUTANTS AND CONTAMINANTS OF EMERGING CONCERN

LANL supports the goal of monitoring levels of toxic pollutants that can cause harm to aquatic life or humans through consumption. However, this goal must be accomplished through scientifically supportable methods in a manner that does not run afoul of constitutional due process requirements. Therefore the Commission should reject NMED's proposed amendments to the Toxic Pollutants General Criteria and the related definition of "contaminants of emerging concern" ("CEC") in 20.6.4.7 NMAC, and amend the General Criteria and Toxic Pollutant definition in the manner proposed by LANL, modified post hearing as addressed below, by explicitly referencing the accepted EPA list of toxic pollutants set out in CWA Section 307(a), and providing a placeholder for the Commission to add pollutants to the list through the rulemaking process.

A. Applicable Law

i. State and Federal Law Governing Surface Water Quality Criteria

The CWA and implementing regulations and the New Mexico WQA authorize and require states to adopt, review, establish, and revise water quality standards that protect the public health or welfare and enhance the quality of water. 33 U.S.C. § 1251 *et seq.*; 40 C.F.R. § 131.4; NMSA 1978, § 74-6-4 (2019). Among other requirements, state water quality standards must include "water quality criteria sufficient to protect the designated uses" for surface waters of the state. 40 C.F.R. § 131.6; *see* 20.6.4 NMAC. Such criteria may be in the form of numerical values or narrative criteria but "must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated uses." 40 C.F.R. § 131.11.

Pursuant to these federal and state requirements, the Commission has adopted "general criteria" applicable to "all surface waters of the state at all times." 20.6.4.13 NMAC. Following

a broad declaration that "[s]urface waters of the state shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property," New Mexico's general (or narrative) criteria are set forth in 20.6.4.13(A)-(M) NMAC.

Relevant to this argument, the Standards identify the following "general criteria" (*i.e.*, narrative standard) for toxic pollutants:

> surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organism or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.

20.6.4.13.F(1) NMAC. The Standards define "Toxic Pollutant" under 20.6.4.7 NMAC Subsection 7(T)(2) as:

> those pollutants, or combination of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.

ii. Administrative Enforcement Standards

Under the WQA, a violation of any WQS (which includes the general criteria discussed above) is enforceable by direct agency action through civil and/or criminal actions. *See* NMSA 1978, §§ 74-6-10 to -10.2. In the event the state agency determines, "*on the basis of any information*" that the toxic pollutant standard is violated, the constituent agency may:

> (1) issue a compliance order requiring compliance immediately or within a specified time period or *issue a compliance order assessing a civil penalty*, or both; or

(2) commence a civil action in district court for appropriate relief, including injunctive relief.

Id. § 74-6-10(A) (emphasis added). Under Section 74-6-10.1(B) of the WQA "*any* person who violates any . . . water quality standard . . . adopted pursuant to [the WQA] *shall* be assessed civil penalties of up to $10,000 per day for each violation." *Id.* § 74-6-10.1(B) (1993) (emphasis added). Under Section 74-6-10.2(A)(1), knowingly discharging "any water contaminant without a permit for the discharge, if a permit is required, or in violation of any condition of a permit for the discharge . . ." constitutes a fourth degree felony subject to criminal sentencing. *Id.* §§ 74-6-10.2(A)(1), (B) (1993).[12] And, if the discharge causes a "substantial adverse environmental impact" the criminal penalty is heightened to a third degree felony. *Id.* § 74-6-10.2(D) (1993).

iii. The Due Process Analysis

It is well-established through New Mexico case law that "[a] statute will be held unconstitutional in violation of due process of law, if the statute either forbids or requires the doing of an act in terms so vague that [people] of common intelligence must guess at its meaning and differ as to its application." *See, e.g.*, *Tri-State Generation and Transmission Ass'n, Inc., v. D'Antonio*, 2012-NMSC-039, ¶ 52, 289 P.3d 1232, 1244 (*quoting State v. Segotta*, 1983-NMSC-092, ¶ 5, 100 N.M. 498, 499, 672 P.2d 1129, 1130); *Bokum Res. Corp. v. New Mexico Water Quality Control Comm'n*, 1979-NMSC-090, ¶ 17, 93 N.M. 546, 550, 603 P.2d 285, 289; *Kerr-*

[12] A permit is required under the CWA under the following scenarios. Under the NPDES, "the [EPA] Administrator may, after opportunity for public hearing issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 1311(a) of this title, upon condition that such discharge will meet either (A) all applicable requirements under sections 1311 [effluent limitations], 1312 [water quality related effluent limitations], 1316 [national standards of performance], *1317 [toxic and pretreatment effluent standards]*, 1318 [records and reports; inspections], and 1343 [ocean discharge criteria] of this title, or (B) prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this chapter." 33 U.S.C. § 1342(a)(1) (emphasis added). *See* Section B, infra. 40 C.F.R. § 401.15 lists the "toxic pollutants designated pursuant to section 307(a)(1) of the Act[.]"

McGee Nuclear Corp. v. New Mexico Water Quality Control Comm'n, 1982-NMCA-015, ¶ 13, 98 N.M. 240, 244, 647 P.2d 873, 877.

The New Mexico appellate court opinions in *Bokum Resources* and *Kerr-McGee* give detailed guidance on how this due process requirement has been applied in the context of regulatory water quality standards for toxic pollutants.

Bokum Res. Corp. v. New Mexico Water Quality Control Comm'n, involved a vagueness challenge to the Commission groundwater regulations defining toxic pollutants, which allowed the director of the Environment Improvement Division ("Director") to determine that a discharge was a "toxic pollutant" based on whether:

> those water contaminants, or combinations of water contaminants present in concentrations which, upon exposure, ingestion, inhalation or assimilation into humans or other organisms of direct or indirect commercial, recreational or esthetic value, either directly from the environment or indirectly by ingestion through food chains, will, *on the basis of information available to the director or the commission*, cause death, disease, behavioral abnormalities, genetic mutation, physiological malfunctions or physical deformations in such organisms or their offspring.

1979-NMSC-090, ¶ 7, 93 N.M. 546, 548, 603 P.2d 285, 287 (*emphasis added)*; *see also Tri-State Generation and Transmission Ass'n, Inc., v. D'Antonio*, 2012-NMSC-039, ¶ 52, 289 P.3d 1232, 1244 (describing same). Petitioners in that case argued that "subjecting water users to [statutory civil and/or criminal] penalties, when their guilt or innocence may be determined not by what is specified in the regulations but by *information available to the director or the commission*, fails to meet the due process requirements of notice." *Id.* ¶ 9.[13]

The Court agreed. Following review of appellate decisions addressing "void for vagueness claims" the Court articulated the following guidance:

[13] At that time, the enforcement provision of the WQA provided that "in the event a 'toxic pollutant' is discharged, the person discharging it is subject to a fine of not less than $300 per day nor more than $10,000 per day or imprisonment for a period not exceeding one year, or both." Section 74-6-5(Q) authorize[d] a civil penalty of up to $5,000 per day." *Bokum Res.*, 1979-NMSC-090, ¶ 8.

> The same strict rule of construction that is applied to statutes defining criminal action must be applied to rules enacted by an agency pursuant to statutory authority. *Id*. ¶ 13. To the extent that regulations such as these in question place a penalty upon completed acts, concepts of fairness require that they be sufficiently definite to give notice as to what conduct is necessary to avoid those penalties. *Id*. ¶ 25. [E]ven as to those statutes which govern in purely economic or commercial activity, if their violation can engender penalties, a constitutionally adequate warning to those whose activities are governed must be given. *Id*. ¶ 27. If there is any doubt about the meaning of a penal statute or rule, it will be construed against the state or agency which enacted it and in favor of the accused. *Id*. ¶ 32.

The Court then held that "[T]he Commission's regulation, which defines toxic pollutants to be contaminants that will, on the basis of information available to the director or the commission, cause death, or other dire results, *is unconstitutionally vague on its face.*" The Court further held that the regulations defining toxic pollutants were unconstitutionally vague on their face because, among other defects, the definition provided no discernible or guiding standard on which to determine what compounds could be included within and subject to the definition and the definition provided no way to determine "the reasonableness, reliability or scientific accuracy of the 'available' information" considered by the Director to make such determination. *Id*. ¶¶ 5, 11, 28.

In response to the *Bokum Res. Corp.* decision, the Commission revised the definition of toxic pollutants and other regulations referencing that term. The revised definition provided in relevant part as follows:

> In order to be considered a toxic pollutant a contaminant must be one of the potential toxic pollutants listed below and be at a concentration shown by scientific information currently available to the public to have potential for causing one or more of the effects listed above.
>
> Any water contaminant or combination of the water contaminants in the list below creating a lifetime risk of more than one cancer per 1,000,000 exposed persons is a toxic pollutant.
>
> acrolein
> acrylonitrile

aldrin
benzene

* * *

The Commission's order adopting those rule amendments was again appealed to the Court of Appeals in *Kerr-McGee Nuclear Corp. v. New Mexico Water Quality Control Commission*. 1982-NMCA-015, ¶ 1, 98 N.M. 240, 242, 647 P.2d 897, 875. Similar to the argument made in *Bokum Resources*, *Kerr-McGee* asserted that the revised regulation was unconstitutionally vague because the criteria is "so uncertain that they do not have fair notice of what concentration of compounds falls within the definition of toxic pollutants. The Companies state that they will incur penalties for discharging compounds that they, in good faith, believe are not toxic." *Id.* ¶ 5.

This time, however, the Court disagreed. The Court explained that the Companies were incorrectly interpreting revised procedures in the regulations as "placing the burden on them to determine whether the discharge contains toxic pollutants and, therefore, whether they need a discharge plan." *Id.* ¶ 7. The Court acknowledged that the revised toxic pollutant regulations, similar to the definition at issue in *Bokum Resources*, lacked a numerical standard for concentration of compounds that trigger the label 'toxic pollutant.' *Id.* ¶ 13. However, the Court determined "this is not detrimental to the dischargers" because the regulations included a process whereby the Director would necessarily make those determinations and provide notice to a discharger before a discharge plan is approved or disapproved and before "effluent or leachate is discharged." *See id.* The Court thus concluded that "the only way the discharger can be fined is if he discharges without a plan in violation of the Director's determination that one is required, or where he discharges in violation of an existing approved plan." *Id.*

The Court determined that lack of numerical standards alone is "not a basis for finding the statute unconstitutional" *so long as* a procedure is provided whereby the discharger is given

constitutionally adequate notice "for what concentration of compounds triggers the label toxic pollutants" before being subjected to enforcement or penalties for an enforcement violation. *Kerr-McGee,* 1982-NMCA-015, ¶ 13, 98 N.M. 240, 244, 647 P.2d 873, 877. *See also Tri-State Generation*, 2012-NMSC-039, ¶ 57-58, 289 P.3d 1232, 1246 (describing the importance of notice when considering void for vagueness challenges).

B. The General Criteria for Toxic Pollutants Violates Due Process By Subjecting Persons to Enforcement Action Without Discernible Criteria to Determine Whether the Toxic Pollutant Definition is Triggered

The codified Toxic Pollutants Narrative Criteria in 20.6.4.13(F) NMAC, read with the Toxic Pollutant definition in 20.6.4.7(T) NMAC, does not provide a discharger with reasonable notice of what may constitute a WQS violation before undertaking a discharge or being subjected to penalties, and therefore violates due process as defined by the Court in *Bokum Resources* and *Kerr-McGee*. Similar to the regulations that were voided by the Court in *Bokum Resources*, the vague, subjective, and potentially limitless language used in the Toxic Pollutants General Criteria "leaves the discharger without a discernable standard." 20.6.4.13(F) NMAC (*e.g.* "*in amounts, concentrations or combinations that affect . . . or that will or can reasonably be expected to . . . or result in unacceptable"*). Unlike the regulations upheld in *Kerr-McGee*, the Toxic Pollutants Narrative Criteria also lacks a regulatory process to provide constitutionally adequate notice of the concentration of compounds that trigger the label "toxic pollutants" before discharging or being subject to an enforcement action, including civil and criminal penalties. *Cf. Tri-State Generation*, 2012-NMSC-039, ¶ 59, 289 P.3d 1232, 1246.

LANL acknowledges that in many instances the NPDES and 401 certification permit processes will provide the requisite notice, agency approval, and discrete steps for a regulated entity to follow before discharging a pollutant. However, unlike in *Kerr-McGee* where the regulation required determination that the discharge contains toxic pollutants and fair notice of

what concentration of compounds falls within the definition of toxic pollutants prior to the approval of a discharge plan and any discharge, the broad and expansive nature of the general criteria (*e.g.* "surface waters of the state shall be free of toxic pollutants[.]"), in combination with statutory authorization for enforcement by direct agency action, allows for agency application and enforcement at any time, including an after-the-fact assessment about whether a regulated entity discharged a toxic pollutant into the surface waters of the State and caused an enumerated adverse effect on human health or the environment.

Without the benefit of clearly listed toxic pollutants as provided in 40 C.F.R. § 401.15, the regulated entity is left to merely guess whether the discharge and corresponding exposure to an organism "will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring." 20.6.4.7(T)(2) NMAC. The General Criteria for Toxic Pollutants, read in combination with the Toxic Pollutant definition and statutory authority for direct agency enforcement is unconstitutionally vague under the definition applied by the New Mexico Court and must therefore be amended.

C. NMED's Proposed Amendments to The Toxic Pollutants General Criteria Exacerbates The Violation of Due Process

NMED's proposal to amend the Toxic Pollutants General Criteria to specifically reference "contaminants of emerging concern and those toxic pollutants listed in 20.6.2 NMAC" exacerbates the unconstitutional vagueness.

NMED's Amended Petition proposed to add the following language to the Toxic Pollutants General Criteria set forth in 20.6.4.13(F) NMAC:

> [S]urface waters of the state shall be free of toxic pollutants, including but not limited to contaminants of emerging concern and those toxic pollutants listed in 20.6.2 NMAC, from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or are toxic to humans, livestock or

> other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organism or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.

NMED also proposed to define "contaminants of emerging concern" under 20.6.4.7 NMAC as follows:

> Contaminants of emerging concern or CECs refer to water contaminants including, but not limited to, pharmaceuticals and personal care products that may cause significant ecological or human health effects at low concentrations. CECs are generally chemical compounds that, although suspected to potentially have impacts, may not have regulatory standards, and the concentrations to which negative impacts are observed have not been fully studied.

In its rebuttal case, NMED adopted Amigos Bravos' recommendation to specifically reference "per- and polyfluoroalkyl substances" ("PFAS") to the non-exhaustive list of contaminants identified in the NMED's proposed CEC definition and to respond to New Mexico Mining Association's claim that the definition may allow arbitrary assignment of the "CEC" label to substances with no demonstrated environmental harm." *See* **NMED Ex. 107** at 4 (Barrios Rebuttal); **NMED Ex. 110** (NMED's Revised Proposed Amended Rule 20.6.4 NMAC).

If adopted, NMED's proposal, in effect, exacerbates the unconstitutional vagueness of the General Criteria and Definition by seeking to include potentially thousands of unnamed compounds for which there is no toxicity information or discernable regulatory criteria. Starting with the reference to CECs, NMED acknowledges that there is no known "single index of all CECs," Hrg. Tr., Vol II, 436:21-437:2 (Barrios), and "no numeric criteria for CECs." Dr. Dail explained in direct testimony that "Since these parameters, in both concentration and duration of exposure, are not known for many CECs, there is no way for the regulated community nor the state to know what levels we and they are monitoring to, and when levels exceed those detrimental to aquatic life and human health." **LANL Ex. 5** at 6 (Dail Direct).

NMED further acknowledges that the proposed definition of CECs includes contaminants that are known toxins as well as contaminants that are "suspected toxins" meaning that, even with the modifications proposed by NMED in rebuttal, the Toxic Pollutant criteria may encompass and apply to contaminants that do not fit the definition of toxic pollutants and have no demonstrated harm to the environment. **NMED Ex. 2** at 3, 4 (Barrios Direct); **NMED Ex. 107** at 3 (Barrios Rebuttal); Hrg. Tr., Vol. II, 491 (Barrios). NMED also acknowledges that lists of CECs are "constantly evolving" meaning that the contaminants or groups of contaminants that may be subject to enforcement penalties can potentially change at any given moment, including potentially after discharging has commenced. Hrg. Tr., Vol. II, 437:1-2 (Barrios).

Turning to NMED's Amended Petition proposal to reference those toxic pollutants listed in the Commission's groundwater regulations, 20.6.2 NMAC, some pollutants included in the list "lack EPA-promulgated guidance documents which determine numeric limits that are going to be use-specific to [the uses] covered in 20.6.4 NMAC" making it "unclear what numeric limits would apply to both state surveillance and NPDES discharges absent some consideration and promotion before this Commission." Hrg. Tr., Vol. II, 501-502 (Dail); s*ee also* **LANL Ex. 5** at 7 (Dail Direct) (noting that the criteria that is available for Toxic Pollutants listed in 20.6.2 is "not listed in 20.6.2").

Finally, with respect to the general inclusion of "per- and polyfluoroalkyl substances" in the non-exhaustive list of contaminants identified in the NMED's proposed CEC definition, there are "several thousand PFAS compounds, the majority of which lack any toxicity data useful for criteria development or appropriate analysis…creating tremendous uncertainty for regulators and the regulated community." **LANL Ex. 65** at 8, 10 (Judd Rebuttal); *see also* **LANL Ex. 5** at 6 (Dail Direct) (explaining that given "the possibly hundreds of pharmaceuticals, detergents, and other

possible endocrine disruptors (and breakdown products thereof) that fall under the CEC definition, there is no indication what entity (state or regulated community, or both) will need to perform monitoring, and for which among these contaminants").

These are just a few of the numerous examples demonstrating the unconstitutional vagueness in NMED's amendments to the Toxic Pollutants General Criteria, including the related definition of CECs, which NMED conceded were proposed without regard to Court holdings in *Bokum Resources* or *Kerr-McGee* or the enforcement provisions of the WQA. Hrg. Tr., Vol. II, 456-466 (Barrios). As succinctly put by Dr. Dail at hearing,

> If we don't know what those constituents are, then we don't know what the limits should be. . . . When we're not sure what those contaminants are or limits are, I'm not sure how, one, NMED is going to regulate and what . . . [however] incorporation of CECs into 20.6.4 makes these CECs automatically actionable for the permitted community.

Hrg. Tr., Vol. II, 513 (Dail); Hrg. Tr., Vol. II, 645:23-646:1 (Bearzi) (agreeing with LANL that "without clearly stated criteria[,] compliance with narrative water quality standards for CECs at this time could be unclear to permittees.").

In sum, the Commission's toxic pollutant narrative standard and definition (with or without the amendments proposed by NMED) does not provide discernible criteria for a discharger to determine whether a pollutant or a combination of pollutants triggers the definition of toxic pollutant before being subjected to an enforcement action and/or civil and criminal penalties. The Regulation, with or without NMED's proposed amendments, is therefore unconstitutionally vague on its face and must be amended.

D. The Commission Should Remedy the Unconstitutionally Vague Toxic Pollutants General Criteria by Adopting LANL's Proposal As Modified Post Hearing

To cure the constitutional notice violation in the existing Toxic Pollutants General Criteria and Definition, LANL suggests: (1) rejecting NMED's proposed definition of CEC at

20.6.4.7(C)(7) NMAC and not including reference to CEC in the Toxic Pollutants General Criteria; and (2) revising the definition of "Toxic pollutant" at 20.6.4.7(T)(2) NMAC, to be consistent with 40 C.F.R. § 131.3(d) and the Commission's approach to regulating toxic pollutants in the groundwater regulations, in the following manner:[14]

> "Toxic pollutant" means those pollutants or combination of pollutants~~, including disease causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairments or physical deformation in such organisms or their offspring~~ listed by the EPA Administrator under section 307(a) of the federal Clean Water Act, 33 U.S.C. § 1313(a) or in the list below.

LANL Ex. 5 at 8 (Dail Direct); **LANL Ex. 1** (Proposed Changes). In rebuttal testimony, LANL clarified that NMED's plan to "implement Standards based on definitions and/or referencing lists that also lack numeric criteria should not be included in changes to 20.6.4 NMAC at this time. Rather, the Commission should consider adding CECs or other non-numeric pollutants at a time when NMED has demonstrated scientifically supportable translators of the General Criteria, as they have in the past for Plant Nutrients." **LANL Ex. 61** at 4 (Dail Rebuttal).

These modifications to the Toxic Pollutant definition and General Criteria proposed by LANL provide regulatory certainty and a clear, defensible path for the Commission to address constituents that should be recognized to be of significant concern in surface waters across New Mexico. LANL's proposal is also most protective of New Mexico waters. LANL proposes to include in the list of toxic pollutants, those pollutants the Commission has already labeled persistent toxic pollutants. LANL also proposes, based on the hearing, to add the list of toxic pollutants in the ground water regulations, 20.6.2.7 NMAC, but to limit their applicability to

[14] Throughout this testimony proposed revisions are shown to an existing NMAC provision with underlined lettering reflecting proposed inserts and strike outs reflecting proposed removals.

human health-related designated uses. And finally, LANL proposes to add two PFAS compounds to the list, based on their inclusion in the groundwater regulations and testimony about potential affects beyond drinking water uses. For these reasons, LANL's proposal should be adopted.

V. THE COMMISSION SHOULD NOT ADOPT A CLIMATE CHANGE OBJECTIVE OR DEFINITION

While LANL agrees that climate change is of significant concern and should be appropriately addressed, amendments to the WQS is not the appropriate way to address climate change. NMED proposed to add an objective to the Standards stating that one of the regulations' purposes is to address climate change, NMED Orig. Petition (20.6.4.6(D) NMAC), and proposed a new definition of "climate change" to "provide reference to the term" in the Standards. NMED Orig. Petition, NMED's Statement of Reasons ("NMED SOR"), § 2(iii). NMED stated the basis for these proposed changes is the Executive Order On Addressing Climate Change And Energy Waste Prevention (2019-003) ("E.O. 2019-003"). E.O. 2019-003 focuses on air emissions of six greenhouse gases as the primary cause of climate change (Section II) and directs all state agencies to "evaluate the impacts of climate change on their programs and operations and integrate climate change mitigation and adaptation practices into their programs and operations." *Id.* § III.3.

Neither the WQA nor the Standards grant the Commission or NMED authority to address emissions of greenhouse gases to mitigate climate change. *See* Hrg. Tr., Vol. I, 144:6-8 (Lemon). Water quality does not cause climate change and the Standards cannot address climate change. The NMED SOR provided no explanation of, or technical or regulatory support for, the adoption of the proposed climate change objective or definition. NMED provided limited explanation in hearing testimony that climate change is a threat to surface waters and that a change to the Standards can provide resiliency against the threat. Hrg. Tr., Vol. I, 117:1-15 (Lemon). Even so, as noted by LANL and SJWC, the proposals contain no specific implementation provisions and

present concerns about unintended consequences associated with unknown future implementation. *See* Hrg. Tr., Vol. I, 227:2-18 (DeRose-Bamman); Hrg. Tr., Vol. I, 244:15-25, 251:19-252:14 (Gallegos).

NMED's proposed "climate change" definition is not an appropriate regulatory definition. Rather, it was based upon information from a years-old, archived EPA website that was not presented as a definition by EPA and is not current. Hrg. Tr., Vol. I, 146:2-7 (Lemon); Hrg. Tr., Vol. I, 229:11-17 (DeRose-Bamman); **SJWC Ex. 3** at 4 (DeRose-Bamman Rebuttal). There is no basis in the CWA, the federal implementing regulations, the WQA or the New Mexico Administrative Code to support NMED's proposed definition. Hrg. Tr., Vol. I, 147:8-12, 173:25-174:11 (Lemon); Hrg. Tr., Vol. I, 230:8-13 (DeRose-Bamman); **SJWC Ex. 3** at 4 (DeRose-Bamman Rebuttal). The Commission would be the first regulatory body in the State to adopt a "climate change" definition. Hrg. Tr., Vol. I, 174:5-11 (Lemon). Taking on that role, when the Commission does not regulate the primary cause of climate change, greenhouse gases, is not warranted or appropriate.

The Commission already has the authority to evaluate the impacts of climate change on the Standards based upon its existing WQA authority, NMSA 1978, §§ 74-6-3(E) and 74-6-4(D), existing objective 20.6.4.6(B) NMAC, and the above-stated Executive Order directive. *See* Hrg. Tr., Vol. I, 145:13-22 (Lemon); Hrg. Tr., Vol. I, 200:7-12, 203:24-204:3 (Conn); Hrg. Tr., Vol. I, 225:20-226:1 (DeRose-Bamman); and Hrg. Tr., Vol. I, 249:17-250:1, 253:21-24, 254:21-255:1 (Gallegos). Neither NMED's proposed climate change objective nor its proposed definition are needed. Moreover, NMED did not provide an adequate statement of reasons or other explanation to meet its burden under *Tenneco Oil Co. v. New Mexico Water Quality Control Comm'n*, 1987-NMCA-153, ¶ 8, 107 N.M. 469, 471, 760 P.2d 161, 163, of demonstrating that either climate

change proposal is warranted or appropriate. The Commission should not adopt either proposed climate change objective or definition, 20.6.4.6(D) or 20.6.4.7(C)(4) NMAC or any of the other parties' proposed amendments or alternatives to those provisions.

VI. LANL'S PROPOSED CHANGES TO THE STANDARDS ARE PROCEDURALLY VALID

The following section responds to Department testimony suggesting that LANL's recommended changes to 20.6.4.12(E) NMAC, 20.6.4.14(A) NMAC and 20.6.4.7(S) NMAC should be excluded from this Rulemaking because they are not a "logical outgrowth" of NMED's Petition. *See, e.g.*, **NMED Ex. 106** at 5-6 (Lemon Dir.); Hrg. Tr., Vol. III, 711:17-20, 717:6-13, 723:7-10 (Lemon).

The "logical outgrowth doctrine" is a common law standard developed and applied by courts to address and resolve claims that a final rule was issued *without legally adequate notice*. Phillip M. Kannan, The Logical Outgrowth Doctrine in Rulemaking, 48 Admin. L. Rev. 214, 214-216 (1996) (emphasis added). Specifically, the doctrine has been applied in informal (*i.e.* notice and comment) rulemakings under the federal Administrative Procedures Act ("APA") to examine whether commenters were afforded a sufficient opportunity to comment on a rule. *See, e.g.*, *American Water Works Ass'n v. E.P.A.*, 40 F.3d 1266, 1274 (D.C. Cir. 1994) ("An agency fulfills the notice requirement of the APA if it provides sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully. In most cases, if the agency then alters its course in response to the comments it receives, little purpose would be served by a second round of comment. The test we have developed for deciding whether a second round of comment is required in a particular case is whether the final rule promulgated by the agency is a 'logical outgrowth' of the proposed rule.") (internal citations and quotation marks omitted).

NMED's misplaced reliance on the "logical outgrowth" doctrine is contrary to law and the record for this proceeding and should not guide the Commission's analysis of LANL's proposal. First, the "logical outgrowth doctrine" serves no purpose outside of a notice and comment rulemaking. The rulemaking process before the Commission, similar to a *formal* rulemaking under the APA, is a robust trial-type proceeding with opportunity to all interested parties and the public to comment on all proposals and provide direct and rebuttal evidence and conduct direct and cross-examination of all witness. Public hearings on significant rule proposals can last for days and sometimes weeks with input, support, and opposition from parties across various industries and geographic regions of the State. The principal purpose served by this process is to allow the Commission to consider changes to a proposal. Necessarily, this process may, and indeed should, result in promulgation of a rule somewhat different than what was originally proposed. Were that not the case, the extraordinarily resource intensive hearing process would essentially be a meaningless exercise.

Next, "logical outgrowth" is a test used to determine whether the ***final rule*** adopted by an agency is a 'logical outgrowth' of a ***proposed rule*** not, as NMED suggests, whether one parties' proposed rule amendments are a logical outgrowth of another party's petition.

Finally, NMED's argument should be rejected because interested parties and the public had sufficient notice of LANL's Proposed Changes and opportunity to present evidence and cross examine witnesses on proposed changes at the public hearing. LANL notes that NMED's understanding of the scope of this rulemaking as being limited to NMED's proposed rule changes and "logical outgrowths" thereof, is simply wrong. The Public Notice of Hearing expressly states that the purpose of the hearing is "to consider proposed amendments to 20.6.4 NMAC, Standards and Intrastate Surface Waters," ***not*** NMED's proposed amendments to 20.6.4 NMAC. *See, e.g.*,

NMED Ex. 96 at 3 (Notice published in the New Mexico Register). The Notice of Hearing also directs all interested persons to "visit the WQCC website prior to the hearing for any updates," putting all interested parties on notice that additional changes may be proposed prior to hearing. *Id.*

LANL's proposed changes to 20.6.4.12(E) NMAC, 20.6.4.14(A) NMAC and 20.6.4.7(S) NMAC are without question within the noticed scope of "proposed amendments to 20.6.4 NMAC." *Id.* Moreover, LANL's proposed changes to 20.6.4.12(E) NMAC, 20.6.4.14(A) NMAC and 20.6.4.7(S) NMAC were expressly stated in: **LANL Exhibit 1** to LANL's Notice of Intent to Present Technical Testimony, filed with the Commission on May 3, 2021 and posted to the Commission's public website; and **LANL Exhibit 57** to LANL's Notice of Intent to File Rebuttal Technical Testimony, filed with the Commission on June 22, 2021 and also posted on the Commission's website. These posted filings establish that interested persons were also provided actual notice of LANL's proposed changes to 20.6.4.12(E) NMAC, 20.6.4.14(A) NMAC and 20.6.4.7(S) NMAC. Additionally, the transcript of this proceeding establishes that all parties and members of the public were provided an opportunity at hearing to cross examine LANL witnesses on LANL's proposed changes. *See, e.g.*, Hrg. Tr., Vol. III, 807:18-21 (Chakalian) (asking if there is a Commissioner or member of the public "that has cross-examination for Dr. Toll").

For the reasons stated, the Commission's consideration of additional amendments to the Standards recommended by LANL and supported through pre-filed technical testimony from LANL's technical experts is neither a violation of the logical outgrowth doctrine or prejudicial to any interested person. The Commission may deliberate on and consider adoption of LANL's proposed changes without additional public notice or opportunity to present additional evidence.

CONCLUSION

For the reasons stated herein, the Commission should accept LANL's proposed final changes to the Standards attached as **Exhibit A** and Statement of Reasons attached as **Exhibit B** and amend 20.6.4 NMAC accordingly.

Respectfully submitted,

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LANL'S FINAL PROPOSED AMENDMENTS TO 20.6.4 NMAC

LANL's final proposed amendments to the current 20.6.4. NMAC are shown with additions underlined and deletions indicated by strikethrough. Only those provisions for which LANL is proposing revisions are shown. Where LANL has recommended in its Proposed Statement of Reasons that the Commission not adopt an NMED proposal for a new provision or new language, LANL's recommendation is shown by omission of NMED's proposal.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 4 STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS

20.6.4.7 DEFINITIONS: Terms defined in the New Mexico Water Quality Act, but not defined in this part will have the meaning given in the Water Quality Act.

A. Terms beginning with numerals or the letter "A," and abbreviations for units.

* * *

(8) "Attainable Use" means ~~achievable by the imposition of effluent limits required under sections 301(b) and 306 of the Clean Water Act and implementation of cost-effective and reasonable best management practices for nonpoint source control.~~ an aquatic life, wildlife, or recreation use that is attainable, based on the evaluation of the factor(s) in 40 CFR 131.10(g) that preclude(s) attainment of the use and any other information or analyses that were used to evaluate attainability. An attainable use may require criteria more or less stringent than prescribed by the designated uses.

* * *

L. Terms beginning with the letter "L".

* * *

(2) "Limited aquatic life" as a designated use, means the surface water is capable of supporting only a limited community of aquatic life. This subcategory includes surface waters that support aquatic species selectively adapted to take advantage of naturally occurring rapid environmental changes, ~~ephemeral or intermittent water,~~ low-flow, high turbidity, fluctuating temperature, low dissolved oxygen content or unique chemical characteristics.

* * *

M. Terms beginning with the letter "M".

(1) "Marginal coldwater" in reference to an aquatic life use means that natural intermittent or low flows, or other natural habitat conditions severely limit maintenance of a coldwater aquatic life population during at least some portion of the year or historical data indicate that the temperature ~~in~~ of the surface water of the state may exceed 25°C (77°F).

* * *

S. Terms beginning with the letter "S".

* * *

(5) "Sufficiently sensitive" means any method approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters for which (1) the method minimum level (ML) is at or below the level of the effluent limit established in the permit; or (2) the method has the lowest ML of the analytical methods approved under 40 CFR part 136 for the measured pollutant or pollutant parameter.

T. Terms beginning with the letter "T".

* * *

(2) "Toxic pollutant" means those pollutants, or combination of pollutants~~, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.~~ listed by the EPA Administrator under section 307(a) of the federal Clean Water Act, 33 U.S.C. § 1313(a) or in the list below.

Persistent Toxics listed in 20.6.4.900.J NMAC

Antimony, dissolved (CAS 7440-36-0)
Arsenic, dissolved (CAS 7440-38-2)
Methylmercury (CAS 22967-92-6)
Nickel, dissolved (CAS 7440-02-0)
Selenium, dissolved (CAS 7782-49-2)
Thallium, dissolved (CAS 7440-28-0)
Zinc, dissolved (CAS 7440-66-6)
Aldrin (CAS 309-00-2)
Benzo(a)pyrene (CAS 50-32-8)
Chlordane (CAS 57-74-9)
4,4'-DDT (CAS number 50293)
4,4'-DDE (CAS number 72559)
4,4'-DDD (CAS number 72548).
Dieldrin (CAS 60-57-1)
Dioxin
Hexachlorobenzene (CAS 118-74-1)
Polychlorinated Biphenyls (PCBs) (CAS 1336-36-3)
Tetrachloroethylene (CAS 127-18-4)

PFAS Compounds [1]
Perfluorooctanoic acid (PFOA) (CAS 335-67-1)
Perfluorooctane sulfonate (PFOS) (CAS 1763-23-1)

Toxic Pollutants listed in 20.6.2.7 NMAC [2]

acrolein (CAS 107-02-8)
benzene and alkylbenzenes
- *benzene (CAS 71-43-2)*
- *toluene (methylbenzene) (CAS 108-88-3)*
- *ethylbenzene (CAS 100-41-4)*

xylenes (dimethyl benzene isomers): o-xylene (CAS 95-47-6); m-xylene (CAS 108-38-3) and p-xylene (CAS 106-42-3)
- *styrene (ethenylbenzene) (CAS 100-42-5)*

chlorinated benzenes
- *monochlorobenzene (CAS 108-90-7)*
- *1,2-dichlorobenzene (ortho-dichlorobenzene) (CAS 95-50-1)*
- *1,4-dichlorobenzene (para-dichlorobenzene) (CAS 106-46-7)*
- *1,2,4-trichlorobenzene (CAS 120-82-1)*
- *1,2,4,5-tetrachlorobenzene (CAS 95-94-3)*
- *Pentachlorobenzene (CAS 608-93-5)*
- *hexachlorobenzene (CAS 118-74-1)*

chlorinated phenols
- *2,4-dichlorophenol (CAS 120-83-2)*
- *2,4,5-trichlorophenol (CAS 95-95-4)*
- *2,4,6-trichlorophenol (CAS 88-06-2)*
- *pentachlorophenol (PCP) (CAS 87-86-5)*

chloroalkyl ethers
- *bis (2-chloroethyl) ether (CAS 111-44-4)*
- *bis (2-chloroisopropyl) ether (CAS 108-60-1)*
- *bis (chloromethyl) ether (CAS 542-88-1)*

1,2-dichloropropane (propylene dichloride, PDC) (CAS 78-87-5)
dichloropropenes (CAS 542-75-6)
1,4-dioxane (CAS 123-91-1)
halogenated ethanes
- *1,2-dibromoethane (ethylene dibromide, EDB) (CAS 106-93-4)*
- *1,1-dichloroethane (1,1-DCA) (CAS 75-34-3)*
- *1,2-dichloroethane (ethylene dichloride, EDC) (CAS 107-06-2)*
- *1,1,1-trichloroethane (TCA) (CAS 71-55-6)*
- *1,1,2-trichloroethane (1,1,2-TCA) (CAS 79-00-5)*
- *1,1,2,2-tetrachloroethane (CAS 79-34-5)*
- *hexachloroethane (CAS 67-72-1)*

[1] Pollutants listed as PFAS compounds do not apply to waters with a limited aquatic life designated use.
[2] Toxic pollutants listed in 20.6.2.7 NMAC only apply to waters with a domestic water supply designated use, with the exception of the PFAS compounds listed above.

halogenated ethenes
- *chlorothene (vinyl chloride) (CAS 75-01-4)*
- *1,1-dichloroethene (1,1-DCE) (CAS 75-35-4)*
- *trans-1,2-dichloroethene (trans-1,2-DCE) (CAS 156-60-5)*
- *trichloroethene (trichloroethylene, TCE) (CAS 79-01-6)*
- *tetrachloroethene (perchloroethylene, PCE) (CAS 127-18-4)*

halogenated methanes
- *bromodichloromethane (CAS 75-27-4)*
- *bromomethane (CAS 74-83-9)*
- *chloromethane (CAS 74-87-3)*
- *dichlorodifluoromethane (fluorocarbon-12) (CAS 75-71-8)*
- *dichloromethane (methylene chloride) (CAS 75-09-2)*
- *tribromomethane (bromoform) (CAS 75-25-2)*
- *trichloromethane (chloroform) (CAS 67-66-3)*
- *tetrachloromethane (carbon tetrachloride) (CAS 56-23-5)*
- *trichlorofluoromethane (fluorocarbon-11) (CAS 75-69-4)*

hexachlorobutadiene (CAS 87-68-3)

isophorone (CAS 78-59-1)

methyl tertiary-butyl-ether (MTBE) (CAS 1634-04-4)

nitroaromatics and high explosives (HE)
- *nitrobenzene (CAS 98-95-3)*
- *2,4-dinitrotoluene (2,4-DNT) (CAS 121-14-2)*
- *2,6-dinitrotoluene (2,6-DNT) (CAS 606-20-2)*
- *octrahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) (CAS 2691-41-0)*
- *hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) (CAS 121-82-4)*
- *2,4,6-trinitrotoluene (TNT) (CAS 118-96-7)*
- *2,4-dinitro-o-cresol (CAS 534-52-1)*
- *dinitrophenols (CAS 51-28-5)*

nitrosamines
- *N-nitrosodiethylamine (CAS 55-18-5)*
- *N-nitrosodimethylamine (CAS 62-75-9)*
- *N-nitrosodibutylamine (CAS 924-16-3)*
- *N-nitrosodiphenylamine (CAS 86-30-6)*
- *N-nitrosopyrrolidine (CAS 930-55-2)*

perchlorate (CAS 14797-73-0)

perfluorinated-chemicals (PFCs)
- *perfluorohexane sulfonic acid (PHHxS) (CAS 355-46-4)*
- *Perfluorooctanesulfonic acid (PFOS) (CAS 1763-23-1)*
- *perfluorooctanoic acid (PFOA) (CAS 335-67-1)*

pesticides
- *Aldrin (CAS 309-00-2)*
- *atrazine (CAS 1912-24-9)*
- *chlordane (CAS 57-74-9)*
- *dieldrin (CAS 60-57-1)*
- *endosulfan (CAS 115-29-7)*

endrin (CAS 72-20-8)
heptachlor (CAS 76-44-8)
hexachlorocyclohexane (HCH, lindane): alpha-HCH (CAS 319-84-6); beta-HCH (CAS 319-85-7); gamma-HCH (CAS 58-89-9); and, technical-HCH (CAS 608-73-1)
prometon (CAS 1610-18-0)
toxaphene (CAS 8001-35-2)
phenol (CAS 108-95-2)
phthalate esters
dibutyl phthalate (CAS 84-74-2)
di-2-ethylhexyl phthalate (DEHP) (CAS 117-81-7)
diethyl phthalate (DEP) (CAS 84-66-2)
dimethyl phthalate (DMP) (CAS 131-11-3)
polycyclic compounds
benzidine (CAS 92-87-5)
dichlorobenzidine (CAS 91-94-1)
diphenylhydrazine (CAS 122-66-7
polychlorinated biphenyls (PCBs) (CAS 1336-36-3)
polynuclear aromatic hydrocarbons (PAHs)
anthracne (CAS 120-12-7)
benzo(a)pyrene (CAS 50-32-8)
3,4-benzofluoranthene (CAS 205-99-2)
benzo(k)fluoranthene (CAS 207-08-9)
fluoranthene (CAS 206-44-0)
fluorene (CAS 86-73-7)
naphthalene (CAS 91-20-3)
1-methylnaphthalene (CAS 90-12-0)
2-methylnaphthalene (CAS 91-57-6)
phenanthrene (CAS 85-01-8)
pyrene (CAS 129-00-0)
thiolane 1,1 dioxide (sulfolane) (CAS 126-33-0)

* * *

U. Terms beginning with the letter "U".

* * *

(2) "Use Attainability Analysis" means a structured scientific assessment of the factors affecting the attainment of the use, which include physical, chemical, biological, and economic factors as described in 40 CFR 131.10(g).

* * *

20.6.4.10 REVIEW OF STANDARDS; NEED FOR ADDITIONAL STUDIES:

A. Section 303(c)(1) of the federal Clean Water Act requires that the state hold public hearings at least once every three years for the purpose of reviewing water quality standards and proposing, as appropriate, necessary revisions to water quality standards.

B. In accordance with 40 CFR 131.10, when an existing use of a water, as defined under 20.6.4.7 NMAC, requires a higher level of protection than the current designated use and

new supporting evidence demonstrates the presence of that use, the designated use shall be amended accordingly to protect the existing use. This action can only be taken after the commission has established formal procedures, through the water quality management plan continuing planning process, to amend a designated use that is found to be less restrictive than an existing use. The process described in this section may not be used where the commission has already made a determination concerning the existing use of classified waters of the state.

C. It is recognized that, in some cases, numeric criteria ~~have been adopted that reflect use designations rather than existing conditions of surface waters of the state.~~ for a particular designated use may not adequately reflect the local conditions or the aquatic communities adapted to those localized conditions. In these cases, a water quality criterion may be modified. The modification of the criterion does not change the designated use; the modification only changes the criterion for that specific waterbody. ~~Narrative criteria are required for many constituents because accurate data on background levels are lacking. More intensive water quality monitoring may identify surface waters of the state where existing quality is considerably better than the established criteria.~~ When justified by sufficient data and information, a numeric ~~the~~ water quality ~~criteria~~ criterion ~~will~~ may be adopted or modified in accordance with 20.6.4.10(F) and 20.6.4.10(G) NMAC, to protect the attainable uses of the waterbody.

* * *

F. Site-specific criteria based on natural background. The commission may adopt site-specific criteria equal to the concentration resulting from natural background where that concentration protects the
designated use. The concentration resulting from natural background supports the level of aquatic life and wildlife habitat expected to occur naturally at the site absent any interference by humans. Domestic water supply, primary or secondary contact, or human health-organism only criteria shall not be modified based on natural background unless the WQCC determines such modification is appropriate on a site-specific basis. A determination of natural background shall:

(1) consider natural spatial and seasonal to interannual variability as appropriate;

(2) document the presence of natural sources of the pollutant;

(3) document the absence of human sources of the pollutant or quantify the human contribution; and

(4) rely on analytical, statistical or modeling methodologies to quantify the natural background.

* * *

20.6.4.11 APPLICABILITY OF WATER QUALITY STANDARDS:

* * *

G. Human health-organism only criteria in Subsection J of 20.6.4.900 NMAC apply to those waters with a designated, existing or attainable aquatic life use. When limited aquatic life is a designated use, the human health-organism only criteria apply only if adopted on a segment-specific basis. The human health-organism only criteria for persistent toxic pollutants, as identified in Subsection J of 20.6.4.900 NMAC, also apply to all tributaries of waters with a designated, existing or attainable aquatic life use unless the Water Quality Control Commission determines the human health organism only criteria do not apply on a site-specific basis.

* * *

20.6.4.12 COMPLIANCE WITH WATER QUALITY STANDARDS: The following provisions apply to determining compliance for enforcement purposes; they do not apply for

purposes of determining attainment of uses. The department has developed assessment protocols for the purpose of determining attainment of uses that are available for review from the department's surface water quality bureau.

* * *

E. The commission may establish a numeric water quality criterion at a concentration that is below the ~~minimum quantification level~~ lowest minimum level (ML) of the analytical methods approved by EPA under 40 C.F.R. part 136 for the measured pollutant or pollutant parameter. In ~~such~~ cases in which the WQCC establishes a numeric water quality criterion at a concentration that is below the ML of the EPA-approved analytical methods, the water quality standard is enforceable not at the ~~minimum quantification level~~ numeric water quality criterion, but at the lowest ML of the 40 C.F.R. part 136 approved methods.

* * *

G. Compliance Schedules: ~~It shall be the policy of the commission to allow on a case-by-case basis~~ The commission may allow the inclusion of a schedule of compliance in a NPDES permit issued to an existing facility on a case-by-case basis. Such schedule of compliance will be for the purpose of providing a permittee with adequate time to make treatment facility modifications necessary to comply with water quality based permit limitations determined to be necessary to implement new or revised water quality standards or wasteload allocation. Compliance schedules may be included in NPDES permits at the time of permit renewal or modification and shall be written to require compliance at the earliest practicable time. Compliance schedules shall also specify milestone dates so as to measure progress towards final project completion (e.g., design completion, construction start, construction completion, date of compliance).

* * *

20.6.4.13 GENERAL CRITERIA: General criteria are established to sustain and protect existing or attainable uses of surface waters of the state. These general criteria apply to all surface waters of the state at all times, unless a specified criterion is provided elsewhere in this part. Surface waters of the state shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property.

* * *

F. Toxic Pollutants:

(1) Except as provided in 20.6.4.16 NMAC, surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations, duration, or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.

* * *

20.6.4.14 SAMPLING AND ANALYSIS:

A. 40 CFR Part 136 approved methods shall be used to determine compliance with these standards and in Section 401 certifications under the federal Clean Water Act.

In cases of pollutants for which there are no approved methods under 40 CFR Part 136, analyses shall be conducted according to a test procedure specified in the applicable permit or 401 certification. Where 40 CFR Part 136 approved methods are not required, sampling ~~Sampling~~ and analytical techniques shall conform with methods described in the following references unless otherwise specified by the commission pursuant to a petition to amend these standards:

(1) *"guidelines establishing test procedures for the analysis of pollutants under the Clean Water Act,"* 40 CFR Part 136 or any test procedure approved or accepted by EPA using procedures provided in 40 CFR Parts 136.3(d), 136.4, and 136.5;

(2) *standard methods for the examination of water and wastewater,* latest edition, American public health association;

(3) *methods for chemical analysis of water and waste,* and other methods published by EPA office of research and development or office of water;

(4) *techniques of water resource investigations of the U.S. geological survey;*

(5) *annual book of ASTM standards:* volumes 11.01 and 11.02, water (I) and (II), latest edition, ASTM international;

(6) *federal register,* latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations;

(7) *national handbook of recommended methods for water-data acquisition,* latest edition, prepared cooperatively by agencies of the United States government under the sponsorship of the U.S. geological survey; or

(8) *federal register,* latest methods published for monitoring pursuant to the Safe Drinking Water Act regulations.

* * *

20.6.4.15 USE ATTAINABILITY ANALYSIS:

A. Regulatory Requirements for a use attainability analysis. ~~A use attainability analysis is a scientific study conducted for the purpose of assessing the factors affecting the attainment of a use. Whenever a use attainability analysis is conducted, it shall be subject to the requirements and limitations set forth in 40 CFR Part 131, Water Quality Standards; specifically, Subsections 131.3(g), 131.10(g), 131.10(h) and 131.10(j) shall be applicable.~~ In accordance with 40 CFR 131.10, and 20.6.4.10 NMAC, the amendment of a designated use to a different use that requires more stringent water quality criteria may be supported by a use attainability analysis, but, does not necessarily require a use attainability analysis. A use attainability analysis must be conducted when designated uses do not include uses specified in Section 101(a)(2) of the federal Clean Water Act or when designating sub-categories of these uses require less restrictive criteria than previously applicable. When removing designated uses that are not Section 101(a)(2) uses, a use attainability analysis is not required.

D. Use attainability analysis conducted by an entity other than the department. Any person may submit notice to the department stating the intent to conduct a use attainability analysis.

(1) The proponent shall provide such notice along with ~~develop~~ a work plan supporting ~~to conduct~~ the development of a use attainability analysis ~~and shall submit the work plan~~ to the department and region 6 EPA for review and comment. The department will review and approve work plans, or provide written basis for non-approval, within thirty days of submittal or, in the case of a previously non-approved work plan, re-submittal by a proponent.

* * *

20.6.4.126 RIO GRANDE BASIN - Perennial waters within lands managed by the U.S. Department of Energy (DOE) within Los Alamos National Laboratory (LANL), including but not limited to: ~~portions of~~ Canon de Valle from ~~Los Alamos national laboratory~~ (LANL) stream gage E256 upstream to Burning Ground spring, Sandia canyon from Sigma canyon upstream to

LANL NPDES outfall 001, Pajarito canyon from 0.5 miles below Arroyo de La Delfe upstream to Homestead Spring, Arroyo de La Delfe from Pajarito canyon to Kieling Spring, ~~into~~ Starmers gulch and Starmers spring and Water canyon from Area-A canyon upstream to State Route 501.

A. Designated Uses: coldwater aquatic life, livestock watering, wildlife habitat and secondary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

[20.6.4.126 NMAC - N, 05-23-05; A, 12-01-10]

* * *

20.6.4.128 RIO GRANDE BASIN - Ephemeral and intermittent portions of ~~watercourses~~ waters within lands managed by U.S. ~~department~~Department of ~~energy~~Energy (DOE) within LANL, including but not limited to: Mortandad canyon, Canada del Buey, Ancho canyon, Chaquehui canyon, Indio canyon, Fence canyon, Potrillo canyon and portions of Canon de Valle, Los Alamos canyon, Sandia canyon, Pajarito canyon and Water canyon not ~~specifically~~ identified in 20.6.4.126 NMAC or 20.6.4.140 NMAC. (Surface waters within lands scheduled for transfer from DOE to tribal, state or local authorities are specifically excluded.)

A. Designated Uses: livestock watering, wildlife habitat, limited aquatic life and secondary contact.

B. Criteria: the use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: the acute total ammonia criteria set forth in Subsection K of 20.6.4.900 NMAC (salmonids absent).

[20.6.4.128 NMAC - N, 05-23-05; A, 12-01-10]

* * *

20.6.4.140 RIO GRANDE BASIN: Intermittent portions of S-Site canyon from alluvial groundwater well MSC 16-06293 upstream to Martin Spring, and Twomile canyon from LANL stream gage E244 upstream to its confluence with upper Twomile canyon. (Surface waters within lands scheduled for transfer from DOE to tribal, state or local authorities are specifically excluded.)

A. Designated uses: livestock watering, wildlife habitat, marginal warmwater aquatic life, and secondary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

20.6.4.141 - 20.6.4.200 [RESERVED]

* * *

20.6.4.900 CRITERIA APPLICABLE TO EXISTING, DESIGNATED OR ATTAINABLE USES UNLESS OTHERWISE SPECIFIED IN 20.6.4.97 THROUGH 20.6.4.899 NMAC:

* * *

I. Hardness-dependent acute and chronic aquatic life criteria for metals are calculated using the following equations. The criteria are expressed as a function of dissolved hardness (as mg $CaCO_3$/L). With the exception of aluminum, the equations are valid only for dissolved hardness concentrations of 0-400 mg/L. For dissolved hardness concentrations above 400 mg/L, the criteria for 400 mg/L apply. For aluminum the equations are valid only for

dissolved hardness concentrations of 0-220 mg/L. For dissolved hardness concentrations above 220 mg/L, the aluminum criteria for 220 mg/L apply.

(1) Acute aquatic life criteria for metals: The equation to calculate acute criteria in pt,g/L is $\exp(m_A[\ln(\text{hardness})] + b_A)(CF)$. Except for aluminum, the criteria are based on analysis of dissolved metal. For aluminum, the criteria are based on analysis of total recoverable aluminum in a sample that has a pH between 6.5 and 9.0 and is filtered to minimize mineral phases as specified by the department. ~~The EPA has disapproved the hardness-based equation for total recoverable aluminum in waters where the pH is less than 6.5 in the receiving stream for federal purposes of the Clean Water Act.~~ The equation parameters are as follows:

Metal	mA	bA	Conversion factor (CF)
Aluminum (Al)	1.3695	1.8308	
Cadmium (Cd)	~~0.8968~~0.9789	~~-3.5699-~~3.866	1.136672-[(ln
Chromium (Cr) III	0.8190	3.7256	0.316
Copper (Cu)	0.9422	-1.700	0.960
Lead (Pb)	1.273	-1.460	1.46203-[(ln
Manganese (Mn)	0.3331	6.4676	
Nickel (Ni)	0.8460	2.255	0.998
Silver (Ag)	1.72	-6.59	0.85
Zinc (Zn)	~~0.9094~~0.8473	~~0.9095~~0.884	0.978

(2) Chronic aquatic life criteria for metals: The equation to calculate chronic criteria in lig/L is $\exp(m_c[\ln(\text{hardness})] + b_c)(CF)$. Except for aluminum, the criteria are based on analysis of dissolved metal. For aluminum, the criteria are based on analysis of total recoverable aluminum in a sample that has a pH between 6.5 and 9.0 and is filtered to minimize mineral phases as specified by the department. ~~The EPA has disapproved the hardness-based equation for total recoverable aluminum in waters where the pH is less than 6.5 in the receiving stream for federal purposes of the Clean Water Act.~~ The equation parameters are as follows:

Metal	m_e	b_e	Conversion factor (CF)
Aluminum (Al)	1.3695	0.9161	
Cadmium (Cd)	~~0.7647~~0.7977	~~-4.2180-~~3.909	1.101672-[(ln
Chromium (Cr) III	0.8190	0.6848	0.860
Copper (Cu)	0.8545	-1.702	0.960
Lead (Pb)	1.273	-4.705	1.46203-[(ln
Manganese (Mn)	0.3331	5.8743	
Nickel (Ni)	0.8460	0.0584	0.997
Zinc (Zn)	~~0.9094~~0.8473	~~0.6235~~0.884	0.986

* * *

J. Use-Specific Numeric criteria.

(1) Table of Numeric Criteria: The following table sets forth the numeric criteria applicable to existing, designated and attainable uses. For metals, criteria represent the total sample fraction unless otherwise specified in the table. Additional criteria that are not compatible with this table are found in Subsections A through I, K and L of this section.

Pollutant	CAS Number	DWS	Irr	LW	WIT	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Aluminum,	7429-90-5		5,000						

* * *

(2) Notes applicable to the table of numeric criteria in Paragraph (1) of this subsection

(a) Where the letter "a" is indicated in a cell, the criterion is hardness-based and can be referenced in Subsection I of 20.6.4.900 NMAC.

(b) Where the letter "b" is indicated in a cell, the criterion can be referenced in Subsection C of 20.6.4.900 NMAC.

(c) Criteria are in µg/L unless otherwise indicated.

(d) Abbreviations are as follows: CAS - chemical abstracts service (see definition for "CAS number" in 20.6.4.7 NMAC); DWS - domestic water supply; Irr/Irr storage- irrigation ~~or~~ and irrigation storage; LW - livestock watering; WH - wildlife habitat; HH-OO - human health-organism only; C – criteria based on cancer-causing endpoint; P - persistent toxic pollutant.

(e) The criteria are based on analysis of an unfiltered sample unless otherwise indicated. The acute and chronic aquatic life criteria for aluminum are based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the department.

(f) The criteria listed under human health-organism only (HH-OO) are intended to protect human health when aquatic organisms are consumed from waters containing pollutants. These criteria do not protect the aquatic life itself; rather, they protect the health of humans who ingest fish or other aquatic organisms.

(g) The dioxin criteria apply to the sum of the dioxin toxicity equivalents expressed as 2,3,7,8-TCDD dioxin.

(h) The criteria for polychlorinated biphenyls (PCBs) apply to the sum of all congeners, to the sum of all homologs or to the sum of all Aroclors.

* * *

LANL'S PROPOSED STATEMENT OF REASONS

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INTRODUCTION

1. This matter comes before the New Mexico Water Quality Control Commission ("WQCC" or "Commission") upon a petition filed by the New Mexico Environment Department ("NMED" or "Department") proposing amendments to the State of New Mexico Standards for Interstate and Intrastate Surface Waters ("Standards" or "WQS"), which are codified at Title 20, Chapter 6, Part 4 of the New Mexico Administrative Code (20.6.4 NMAC), commonly referred to as the "Triennial Review."

2. NMED's Petition to Amend Surface Water Quality Standards was filed with the Administrator on August 18, 2020 ("Original Petition"). On October 19, 2020, the Commission issued an Order for Hearing and Appointment of Hearing Officer, designating Gregory Chakalian as Hearing Officer for this proceeding and establishing a hearing date of July 13, 2021. On November 9, 2020, the Hearing Officer issued the Procedural Order governing this proceeding. Unlike in prior Triennial Review proceedings, no other party filed a petition in this proceeding. However, between November 16, 2020 and January 6, 2021, several comments were filed in connection with NMED's Original Petition. On March 12, 2021, NMED filed an Amended Petition to Revise the Standards, and on May 5, 2021 and June 22, 2021, NMED filed additional changes to its petition (collectively with the Original Petition, "NMED's Petition").

3. Seven entries of appearance were filed in this proceeding including those filed by: Triad National Security, LLC and the Department of Energy, National Nuclear Security Administration (collectively "LANL"); Amigos Bravos; the San Juan Water Commission ("SJWC"); the New Mexico Mining Association ("NMMA"); the Buckman Direct Diversion Board ("BDD"); Communities for Clean Water, a consortium that includes Amigo Bravos, Concerned Citizens for Nuclear Safety, Honor Our Pueblo Existence, New Mexico Acequia

Association, Partnership for Earth Spirituality, and Tewa Women United (collectively, "CCW"); and Gila Resources Information Project ("GRIP") (together "CCW-GRIP"). Pursuant to the Procedural Order, as adjusted, the parties pre-filed written direct and rebuttal technical testimony on May 5, 2021 and June 22, 2021, respectively.

4. The hearing on these matters began on July 13, 2021, in Santa Fe, New Mexico and concluded on July 21, 2021. The hearing was conducted virtually in light of the COVID-19 pandemic. The public was afforded ample opportunity to participate throughout the hearing.

LEGAL AUTHORITY

5. Under the New Mexico Water Quality Act ("WQA"), the Commission is responsible for adopting water quality standards and for all other purposes of the federal Clean Water Act ("CWA"). Section 303(c) of the CWA requires each State to hold public hearings from time to time, but at least every three years, for the purpose of reviewing and, as appropriate, modifying and adopting water quality standards. New or revised standards must be submitted by the State to the U.S. Environmental Protection Agency ("EPA") for approval.

6. Under the WQA, any person (including NMED) may at any time petition the Commission to adopt, amend or repeal a water quality standard. NMSA 1978, § 74-6-6(B). The Commission must hold a public hearing in order to adopt new or amended standards. NMSA 1978, §§ 74-6-3(E), 6(A).

7. Section 74-6-4(D) of the WQA provides that:

> The WQCC shall adopt water quality standards for surface and ground water of the state based on credible scientific data subject to the Water Quality Act. The standards shall include narrative standards and, as appropriate, the designated uses of the waters and the water quality criteria necessary to protect such uses. The standards shall at a minimum protect the public health or welfare, enhance the quality of water and serve the purposes of the Water Quality Act.

NMSA 1978, § 74-6-4(D).

8. CWA regulations provide similar direction: "States adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act." 40 C.F.R. § 131.2. A water quality standard "defines the goals for a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses." *Id*. The designated uses in New Mexico's Standards, set forth in 20.6.4.900 (A-H) NMAC, are:

- domestic water supply
- livestock watering
- irrigation and irrigation storage
- aquatic life (coldwater, coolwater, warmwater and four other subcategories)
- primary and secondary contact
- fish culture water supply
- wildlife habitat

9. The Standards also establish water quality criteria that will protect the designated uses of a water body. These criteria must be based on robust scientific rationale and must contain sufficient parameters or constituents to protect the designated use. 40 C.F.R. § 131.1l(a). The Standards contain narrative criteria that apply to all designated uses. 20.6.4.13 NMAC. The Standards also identify numeric criteria that are specific to particular designated uses 20.6.4.900 NMAC.[1]

10. In addition to setting water quality goals, standards also serve "as the regulatory basis for the establishment of water-quality-based treatment controls and strategies beyond technology-based levels of treatment required by sections 30l(b) and 306 of the [Clean Water] Act." 40 C.F.R. § 131.2.

[1] According to EPA regulations, water quality standards must also contain an antidegradation policy. 40 C.F.R. § 13 l.6(d). New Mexico's antidegradation policy is articulated at 20.6.4.8(A) NMAC. These amendments make no changes to the antidegradation policy.

11. In preparing the proposed amendments, NMED must follow all state and federal requirements for the content and justification of revisions to water quality standards. In particular, the proposed amendments of water quality standards must be based on:

> . . . credible scientific data and other evidence appropriate under the Water Quality Act. . . . [T]he commission shall give weight it deems appropriate to all facts and circumstances, including the use and value of the water for water supplies, propagation of fish and wildlife, recreational purposes and agricultural, industrial and other purposes.
>
> NMSA 1978, § 74-6-4(D).

12. Federal regulation requires that designated uses reflect the uses actually being attained. 40 C.F.R. § 131.10(i). EPA's Water Quality Standards Handbook explains the requirement as follows: "If a water body is designated for a use that requires less stringent criteria than a use that is being attained, the State must revise the use on that water body to reflect the use that is being attained." U.S. Environmental Protection Agency, Water Quality Standards Handbook (2017).

13. The Standards and federal regulation prohibit the removal of designated uses if they are "existing uses." 20.6.4.15(A)(2) NMAC; 40 C.F.R. § 131.10(h). An existing use is "a use actually attained in a surface water of the state on or after November 28, 1975, whether or not it is a designated use." 20.6.4.7(E)(3) NMAC. Existing uses are determined on a site-specific basis that includes consideration of both uses that have been achieved and water quality.

14. The Standards also mandate protection of existing uses. The general and use-specific criteria apply to existing uses (20.6.4.13 NMAC; 20.6.4.900 NMAC) and the anti-degradation policy requires that the level of water quality necessary to protect existing uses must be maintained. 20.6.4.8(A)(l) NMAC. These amendments properly recognize the existing uses for various waters in the State.

15. The Standards and federal regulation prohibit the removal of a designated use that is a CWA Section 10l(a)(2) use unless a Use Attainability Analysis ("UAA") demonstrates that attaining the use is not feasible. 20.6.4.15(A)(l) NMAC; 40 C.F.R. § 131.10(j). CWA Section 101(a)(2) establishes as a national goal the achievement of a level of water quality that "provides for the protection and propagation of fish, shellfish and wildlife, and provides for recreation in and on the water." The corresponding designated uses in New Mexico are the primary contact use, the wildlife habitat use, and all aquatic life use subcategories except the limited aquatic life use.

DEVELOPMENT OF THE TRIENNIAL REVIEW

16. NMED published the Original Petition and a Notice of Public Comment Period and Informational Meetings regarding the Original Petition on November 2, 2021. NMED hosted two virtual informational meetings on November 12, 2020 and November 16, 2020. Public comments were initially due on December 2, 2020, but NMED extended the deadline for public comment to January 6, 2021.

17. Legal notice for the hearing was published in the New Mexico Register, in both Spanish and English, and newspapers of general circulation in the state. **NMED Ex. 96** (Notice published in the New Mexico Register); **NMED Ex. 98** (Notice published in the Albuquerque Journal); **NMED Ex. 99** (Notice Published in The Santa Fe New Mexican). Notice of the hearing was sent to the Commission's mailing list and the Surface Water Quality Bureau's ("SWQB") mailing list. **NMED Ex. 97** (Notice sent to stakeholders); **NMED Ex. 100** (Notice sent to NMED District Managers); **NMED Ex. 102** (Notice sent to SWQB Listserv); **NMED Ex. 103** (Notice published on NM Sunshine Portal); **NMED Ex. 104** (Notice sent to NM Legislative Council Service); and **NMED Ex. 105** (Notice sent to NM Small Business Regulatory Advisory

Commission). Notice was also published on the SWQB website. **NMED Ex. 101** (Notice on SWQB Webpage).

18. On October 19, 2020, the Commission issued an Order for Hearing and Appointment of Hearing Officer, appointing Gregory Chakalian as Hearing Officer. On November 9, 2020, the Hearing Officer issued a Procedural Order.

19. LANL, NMED, Amigos Bravos, SJWC, NMMA, CCW-GRIP, and the BDD submitted pre-filed written direct and/or rebuttal technical testimony.

20. A virtual public hearing was held in Santa Fe, New Mexico from July 13, 2021 through July 21, 2021. The Commission heard technical testimony, including direct and cross examination, from NMED, LANL, Amigos Bravos, SJWC, NMMA, and CCW-GRIP. Public comment was heard from many interested parties.

21. After the public hearing, in accordance with the Scheduling Order, parties submitted closing arguments, proposed reasons, and final proposed changes to the Standards.

22. The Commission allowed all interested persons a reasonable opportunity to submit data, views, and arguments, and to examine witnesses. The record containing pleadings, written testimony, exhibits, the hearing transcript, public comments, and hearing officer orders has been submitted to the Commission for review in compiling this Statement of Reasons. The Commission's final proposed changes to the Standards, including edits post public hearing, are included as **Attachment [Ref].**

23. Based upon the evidence and argument in the record, the following Statement of Reasons sets forth how the Commission considered and weighed the evidence presented and considered legal arguments in this matter with respect to adoption of changes to New Mexico's Water Quality Standards at 20.6.4 NMAC.

PROPOSED STATEMENT OF REASONS[2]

After a full deliberation the Commission hereby submits the following Statement of Reasons in support of its decision:

I. CLIMATE CHANGE

A. 20.6.4.6(D) NMAC - whether to add objective related to climate change

24. NMED proposed to add language to the Objective section (20.6.4.6 NMAC) to identify that an objective of the regulations is to address climate change. *See* NMED Orig. Petition, filed August 19, 2020. NMED's initial statement of objective was based upon the Executive Order On Addressing Climate Change And Energy Waste Prevention (2019-003). NMED withdrew the Executive Order reference and amended the objective to state that the Standards serve to address threats to water quality from climate change. NMED Amended Petition, filed March 12, 2021; **NMED Ex. 9** (NMED's Proposed Amended Rule). NMED further amended the proposed objective to provide that the Standards can respond to the threats of climate change and provide resiliency. **NMED Ex. 110** (NMED's Revised Proposed Amended Rule). NMED states that an objective is appropriate because climate change is a global threat and the Standards can provide resiliency against that threat. Hrg. Tr., Vol. I, 117:1-15 (Lemon). SJWC and LANL oppose adoption of NMED's proposed new objective on various grounds, including that "water quality does not create climate change; the Standards may require future modifications due to climate change, but the Standards cannot address climate change." **LANL Ex. 59** at 35-36 (Gallegos Rebuttal); **SJWC Ex. 2** (DeRose-Bamman Direct)..

[2] Note that LANL submits Proposed Statement of Reasons for only those portions of 20.6.4 NMAC where it has proposed an amendment to the Standards or offered testimony in support of or against a proposed amendment to the Standards.

25. While the Commission shares NMED's concerns that climate change could have significant impacts on the surface waters and hydrologic regimes throughout New Mexico, the Commission finds that water quality does not cause climate change and the Standards cannot address climate change. NMED's Statement of Reasons ("NMED SOR") provided no explanation of, or technical or regulatory support for, the adoption of this new objective. Moreover, as noted by the SJWC and acknowledged by NMED, climate change is a result of greenhouse gases. **SJWC Ex. 2** at 5 (DeRose-Bamman Direct); Hrg. Tr., Vol. I, 142:12-14 (Lemon).

26. The purpose of the Standards is to protect against *all* causes of surface water quality impairment consistent with the WQA and the federal CWA. To the extent that climate change causes or contributes to an impairment of surface water quality, protection against climate change is already effectively stated in 20.6.4.6(B) NMAC. *See* **SJWC Ex. 2** at 6 (DeRose-Bamman Direct); **NMED Ex. 1** at 12 (Lemon) (the Standards "protect the State's water resources against all foreseen and unforeseen sources threatening surface water quality, including climate change"). The Commission finds that there is not sufficient evidence in the record to support singling out only one anthropogenic activity as a potential source of water quality impairment; that approach is not consistent with the other broadly stated goals of the Standards. *See* Hrg. Tr., Vol. I, 223:22-224:4 (DeRose-Bamman).

27. The SJWC and LANL opposed adoption of the new objective. **SJWC Ex. 2** at 5-6 (DeRose-Bamman Direct) and **SJWC Ex. 3** (DeRose-Bamman Rebuttal) at 2-3; **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); **LANL Ex. 59** at 35-36 (Gallegos Rebuttal). Among the parties that supported including an objective, there was no consensus upon the wording of the climate change objective. *See* Hrg. Tr., Vol. I, 123:8-13, 125:3-126:14 (Lemon); **Amigos Bravos**

Ex. 3 at 4 (Conn Direct); **Amigos Bravos Ex. 24** (Second Revised Proposed Amendments); **CCW-GRIP Ex. 1** (Proposed Revisions to 20.6.4 NMAC); **CCW-GRIP Ex. 5** at 3-4 (Homer Rebuttal).

28. The Commission concludes that it already has the authority to consider climate change in water quality standards development. NMSA 1978, § 74-6-3(E); *see* Hrg. Tr., Vol. I, 145:13-22 (Lemon); Hrg. Tr., Vol. I, 200:7-12, 203:24-204:3 (Conn); Hrg. Tr., Vol. I, 225:20-226:1 (DeRose-Bamman). Accordingly, the Commission finds that the proposed new objective in 20.6.4.6(D) NMAC is unnecessary and the Commission declines to adopt it. Consistent with that determination, the Commission also declines to adopt Amigos Bravos' proposed new section 20.6.4.6(C) NMAC or CCW-GRIP's proposed amended statement of objective. *See* **Amigos Bravos Ex. 24** (Second Revised Proposed Amendments); **CCW-GRIP Ex. 1** (Proposed Revisions to 20.6.4 NMAC).

B. 20.6.4.7(C) NMAC - whether to add a definition for "climate change"

29. NMED proposed to add a definition of "climate change" "to provide reference to the term as it applies to these regulations [the Standards]." NMED Orig. Petition, filed August 19, 2020, NMED SOR, § 2(iii). LANL opposes NMED's proposal to add the definition of "climate change" in section 20.6.4.7(C)(4) NMAC because, without the proposed climate change objective, the term is not used in the Standards and the definition is superfluous.

30. The SJWC, LANL, and the NMMA opposed adoption of the proposed "climate change" definition. **SJWC Ex. 2** at 6-7 (DeRose-Bamman Direct) and **SJWC Ex. 3** at 4 (DeRose-Bamman Rebuttal); **LANL Ex. 57** at 2 (Proposed Changes to 20.6.4 NMAC) and **Ex. 59** at 35 (Gallegos Rebuttal); NMMA's Notice Of Intent To Present Technical Testimony ("NOI") at 3-4. Neither the "climate change" objective nor the definition would have a direct effect or create additional implementation actions or responsibilities. Hrg. Tr., Vol. I, 160:6-17 (Lemon). The

Commission concurs with these parties' objections that the proposed definition is unnecessary, likely to create unnecessary confusion for regulators and the regulated community, and could set false expectations about how administration and enforcement of the Standards could affect climate change. *See* **SJWC Ex. 2** at 6 (DeRose-Bamman Direct); **LANL Ex. 59** at 36 (Gallegos Rebuttal); NMMA's NOI at 4.

31. The record reflects that there is not a consensus about the definition of "climate change" and, in the absence of specific implementation provisions, the Commission finds that the concerns about unintended consequences are reasonable and legitimate. *See* Hrg. Tr., Vol. I, 227:2-18 (DeRose-Bamman); Hrg. Tr., Vol. I, 244:15-25, 251:19-252:14 (Gallegos). Although Amigos Bravos and CCW-GRIP supported adding a "climate change" definition, neither of those parties agreed with the definition proposed by NMED, with both proposing a statement that climate change is primarily human caused, which statement was rejected by NMED. *See* Hrg. Tr., Vol. I, 130:4-13, 125:3-126:14 (Lemon); **Amigos Bravos Ex. 3** at 5-6 (Conn Direct) and **Amigos Bravos Ex. 24** at 2 (Second Revised Proposed Amendments); **CCW-GRIP Ex. 1** (Proposed Revisions to 20.6.4 NMAC).

32. The Commission finds that the definition of "climate change" proposed by NMED is a not a regulatory definition, it is a description from a 2017 archived page from the EPA website that is not a part of the current EPA website. Hrg. Tr., Vol. I, 146:2-7 (Lemon); Hrg. Tr., Vol. I, 229:11-17 (DeRose-Bamman); **SJWC Ex. 3** at 4 (DeRose-Bamman Rebuttal). There is not a definition of "climate change" in the CWA (Hrg. Tr., Vol. I, 147:8-12 (Lemon); **SJWC Ex. 3** at 4), or in EPA regulations. Hrg. Tr., Vol. I, 173:25-174:11 (Lemon). There is no evidence in the record that any other state has adopted a climate change objective or definition in its state surface water quality standards. Hrg. Tr., Vol. I, 158:5-16 (Lemon). There is also currently no definition

of "climate change" in any New Mexico statute or regulation in the New Mexico Administrative Code. **SJWC Ex. 3** at 4 (DeRose-Bamman Rebuttal); Hrg. Tr., Vol. I, 230:8-13 (DeRose-Bamman); *see,* Hrg. Tr., Vol. I, 147:23-148:15, 174:2-11 (Lemon). If it adopted the proposed definition, the Commission would be the first regulatory body in the State to adopt a "climate change" definition. Hrg. Tr., Vol. I, 174:5-11 (Lemon).

33. There is scientific agreement that climate change is primarily caused by greenhouse gas emissions. Hrg. Tr., Vol. I, 142:12-14, 157:6-14 (Lemon); Hrg. Tr., Vol. I, 192:1-5 (Conn); Hrg. Tr., Vol. I, 228:3-6 (DeRose-Bamman). NMED cannot address the emissions of greenhouse gases to mitigate climate change. Hrg. Tr., Vol. I, 144:6-8 (Lemon). Accordingly, the Commission declines to be the first regulatory body in the State to adopt a "climate change" definition, particularly since it cannot address the primary cause of climate change.

34. Without a definition of "climate change," for standards to be changed, a UAA would be required, whether the reason for the standards change is climate or some other reason. Hrg. Tr., Vol. I, 165:4-166:3 (Lemon); Hrg. Tr., Vol. I, 264:24-265:18 (Homer).

35. The Commission concludes that it already has the authority to consider climate change in water quality standards development. NMSA 1978, § 74-6-3(E); *see* Hrg. Tr., Vol. I, 145:13-22 (Lemon); Hrg. Tr., Vol. I, 200:7-12, 203:24-204:3 (Conn); Hrg. Tr., Vol. I, 225:20-226:1 (DeRose-Bamman); Hrg. Tr., Vol. I, 249:17-250:1, 253:21-24, 254:21-255:1 (Gallegos). Accordingly, the Commission finds that the proposed definition of "climate change" in 20.6.4.7(C)(4) NMAC is unnecessary and the Commission declines to adopt it. Consistent with that determination, the Commission also declines to adopt Amigos Bravos' or CCW-GRIP's proposed amended definitions. *See* **Amigos Bravos Ex. 24** (Second Revised Proposed Amendments); **CCW-GRIP Ex. 1** (Proposed Revisions to 20.6.4 NMAC).

II. DEFINITIONS

A. 20.6.4.7(A) NMAC – definition of Attainable Use

36. NMED originally proposed to amend section 20.6.4.7(A) NMAC ("Section 7(A)") to amend the definitional term of "attainable" to "attainable use" to further define and provide an explanation for stringency. NMED Orig. Petition, filed August 19, 2020.

37. NMED testified that amending the definition to include the word "use" is consistent with the definitions for other "uses," provides clarity because the terms "attainable use" and "attainable" are referenced throughout 20.6.4 NMAC, and clarifies that an "attainable use" may not be as stringent as the designated use. *See* **NMED Ex. 4** at 4:2-10 (Fullam Direct). NMED states that the amendment "does not establish regulations, implement new processes, or affect the implementation of the State's Water Quality Standards." ***Id.*** at 4:11-12. At the hearing, NMED witness Fullam stated that "the standards could be implemented inconsistently" if the proposed revision is not adopted. Hrg. Tr., Vol. II, 322:19-24.

38. LANL opposed NMED's amendments to Section 7(A) and initially recommended that the Commission "simply retain the current definition of the term attainable." *See* **LANL Ex. 63** at 8-10 (Toll Rebuttal); Hrg. Tr., Vol. II, 386:9-13 (Toll). As support for its opposition, LANL witness Dr. Toll testified that the proposed rule focuses exclusively on water quality conditions excluding 5 of the 6 factors identified in 40 C.F.R. § 131.10(g)(2) through (6) as preventing a use from being attainable[.]" **LANL Ex. 63** at 8-9, 10 (Toll Rebuttal); Hrg. Tr., Vol. II, 385-386 (Toll). Dr. Toll further testified that NMED's proposed definition of "attainable use" comes "from the Water Quality Standards Handbook, Section 2.4," which is written for permit writers. Hrg. Tr., Vol. II, 385:10-13. Notably, he explained that permit writers become involved in the process after uses are designated. The permit writers therefore do not address 5 of the factors identified in

40 C.F.R. § 131.10(g)(2) considered as part of the use designation process. Hrg. Tr., Vol. II, 385:13-16 (Toll). It thus follows that the definition is practical for a permit writer, but is "improperly narrow in that it focuses solely on water quality conditions and not on any of the other factors that affect use attainability, which would include natural flow conditions, human-caused conditions, hydrological modifications, physical conditions related to natural features and economic and social impact. Hrg. Tr., Vol. II, 385:17-386:8 (Toll). Finally, LANL objected to improper use of the term "stringent" to apply to a designated use. **LANL Ex. 62** at 11; (Fulton Rebuttal); *Cf.* ***id.*** at 10 (testifying that usage of the term "stringent" should be limited "to refer to the magnitude of numeric criteria rather than sub-categories of designated uses, consistent with 40 C.F.R. § 131.10"); **SWJC Ex. 2** at 15 (DeRose-Bamman Direct) ("Within 40 C.F.R. 131.10, 'stringent' applies to criteria not uses")

39. At hearing, in response to NMED's testimony in support of the amendment, Dr. Toll acknowledged NMED's reasons for wanting to change the defined term to "Attainable Use" and agreed to reconsider LANL's recommendation to reject NMED's proposal in favor of retaining the existing term and definition. Hrg. Tr., Vol. II, 386:15-17 (Toll).

40. Based on evidence and testimony presented at hearing, LANL proposes the following modified definition of "Attainable Use", adapted from the definition of "Highest attainable use" under 40 C.F.R. § 131.3(m):[3]

> "Attainable Use" means ~~achievable by the imposition of effluent limits required under sections 301(b) and 306 of the Clean Water Act and implementation of cost-effective and reasonable best management practices for nonpoint source control.~~ an aquatic life, wildlife, or recreation use that is attainable, based on the evaluation of the factor(s) in 40 CFR 131.10(g) that preclude(s) attainment of the use and any other information or analyses that were used to evaluate attainability.

[3] LANL's proposed final changes are shown compared to the current 20.6.4. NMAC Standards and are shown with additions underlined and deletions indicated by strikethrough.

41. The Commission finds that the modified definition of "attainable use" proposed by LANL is consistent with federal regulations, is supported by evidence, and will serve the interests of transparency to the Commission and regulated, interested parties. The Commission concludes that LANL's proposal as reflected in the Proposed Final Rule submitted by LANL should be adopted.

B. 20.6.4.7(B) NMAC – definition of Baseflow

42. NMED proposed to add a definition of "baseflow" even though the term is not used in the Standards, it would be applied to flow condition and "to clarify the term as it is used in the proposed definition of effluent dominated." NMED Amended Petition, filed March 12, 2021, NMED SOR, § 2(ii); **NMED Ex. 1** at 13 (Lemon Direct); **NMED Ex. 9** (NMED's Proposed Amended Rule).

43. LANL, SJWC, and Amigos Bravos all opposed adding this proposed definition because it is not used in the Standards, serves no regulatory purpose, and is not needed. **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); **LANL Ex. 58** at 2020 LANL TR-01102 to 01106 (Meyerhoff Rebuttal); **LANL Ex. 59** at 32 (Gallegos Rebuttal); **SJWC Ex. 2** at 7 (DeRose-Bamman Direct); **Amigos Bravos Ex. 3** at 11-12 (Conn Direct); Hrg. Tr., Vol. II, 430:5-9 (Conn). Amigos Bravos proposed an alternative definition, removing the reference to "effluent dominated" within the "baseflow" definition and withdrew objection to adoption of that alternative. **Amigos Bravos Ex. 3** at 11-12 (Conn Direct); **Amigos Bravos Ex. 24**; Hrg. Tr., Vol. II, 425:19-426:5 (Conn). While NMED did not object to that Amigos Bravos proposed amendment, it did not amend its proposed definition to incorporate that change. Hrg. Tr., Vol. I, 280:9-20 (Lemon); **NMED Ex. 110** (NMED's Revised Proposed Amended Rule).

44. The Commission finds that the term "baseflow" is not currently used in the Standards, and if adopted would only be used in the new definition of "effluent dominated." The Commission understands that NMED analyzes baseflow conditions in connection with total maximum daily load ("TMDL") developments and National Pollutant Discharge Elimination System ("NPDES") permits. Hrg. Tr., Vol. I, 276:11-17 (Lemon). The term may also be used in the Comprehensive Assessment and Listing Methodology ("CALM") for turbidity and sedimentation assessments. Hrg. Tr., Vol. I, 276:18-22, 277:15-278:2 (Lemon).

45. However, the Commission finds that NMED did not identify any specific program documents in which the term is used or explained how the definition would be used. The Commission will not adopt a new definition without understanding how the term will be applied. *See* Hrg. Tr., Vol. II, 406:22-407:1 (Meyerhoff); Hrg. Tr., Vol. II, 413:15-21 (DeRose-Bamman).

46. The Commission concludes that NMED's statement of reasons do not adequately explain why the proposed definition should be added to the Standards. Therefore, NMED has not met its burden to show that the proposed amendment is appropriate or warranted. Consistent with that determination, the Commission also declines to adopt Amigos Bravos' alternative definition proposed in Amigos Bravos Exhibit 24.

C. 20.6.4.7(E) NMAC – definition of Effluent Dominated

47. NMED proposed a new definition for "effluent dominated" in 20.6.4.7(E)(2) NMAC to "to provide clarity in the application of water quality standards as they pertain to certain permitted discharges." NMED Orig. Petition, filed August 19, 2020, NMED SOR, § 2(v). NMED acknowledged that the term is not used in the Standards but stated that it is used in the Water Quality Management Plan and Continuing Planning Process ("WQMP/CPP") and EPA's Technical Support Document for Water Quality Based Toxics Control regarding NPDES permits.

NMED Ex. 1 at 13-14 (Lemon Direct). NMED testified that the definition would "aid in the implementation" of the Standards and that the term was used in TMDL, NPDES permitting, and CWA Section 401 state certification processes. Hrg. Tr., Vol. I, 281:11-16, 282:16-19 (Lemon). NMED also noted that the term would apply if the State adopted a designated aquatic life use for "effluent dominated" waters. **NMED Ex. 1** at 14 (Lemon Direct).

48. LANL, Amigos Bravos, and SJWC objected to the proposed definition on the basis that it serves no regulatory purpose because it is not used in the Standards. **LANL Ex. 58** at LANL-01102 to 01106 (Meyerhoff Rebuttal); **LANL Ex. 59** at 32 (Gallegos Rebuttal); **Amigos Bravos Ex. 3** at 11-12 (Conn Direct); **SJWC Ex. 2** (DeRose-Bamman Direct); Hrg. Tr., Vol. II, 397:13-14 (Meyerhoff); Hrg. Tr., Vol. II, 424:2-6 (Conn); Hrg. Tr., Vol. II, 412:24-413:5 (DeRose-Bamman); *see* Hrg. Tr., Vol. I, 281:25-282:4 (Lemon). LANL and SJWC objected for the following additional reasons: (i) if the term is used in other procedural documents it should be defined in those documents (Hrg. Tr., Vol. II, 397:16-18, 404:8-10 (Meyerhoff); Hrg. Tr., Vol. II, 413:13-15 (DeRose-Bamman)); and (ii) the definition is premature because NMED is not also proposing to adopt an associated aquatic life use (Hrg. Tr., Vol. II, 397:20-22 (Meyerhoff); *see* Hrg. Tr., Vol. II, 413:21-24 (DeRose-Bamman)). SJWC's witness noted at hearing that the absence of a standardized definition would not result in different impairment decisions, for example, because the term is not used in the Standards and would not be used in impairment decisions. Hrg. Tr., Vol. II, 419:15-22 (DeRose-Bamman). LANL and SJWC also testified that if adopted, the definition should expressly state that permitted discharges are not required to continue in perpetuity to enable permittees the option to recycle, pursue zero discharge goals, or accept more stringent permit limits. Hrg. Tr., Vol. II, 409:2-16 (Gallegos); Hrg. Tr., Vol. II, 415:5-416:5 (DeRose-Bamman). LANL also testified that the value statement in the last sentence of the

proposed definition should be deleted because the definition is focused on flow. Hrg. Tr., Vol. II, 397:23-398:1 (Meyerhoff). Lastly, Amigos Bravos was concerned that the definition could lead to lesser protections for effluent dominated waters. Hrg. Tr., Vol. II, 424:2-10, 425:10-17 (Conn).

49. The Commission finds that the definition of "effluent dominated" is not used in the Standards. Contrary to NMED's testimony, the term is *not* used in the WQMP/CPP. Hrg. Tr., Vol. II, 399:7-9 (Meyerhoff). It is used one time in the CALM document. Hrg. Tr., Vol. II, 399:20-400:2 (Meyerhoff). It is also not used in the Antidegradation Policy Implementation Procedures, instead the term "effluent dependent" is used. Hrg. Tr., Vol. II, 399:12-17 (Meyerhoff). Because the term is generally not used, the Commission finds that the definition would not provide any benefit. *See* Hrg. Tr., Vol. II, 404:13-15 (Meyerhoff). Moreover, if it were to be adopted, it would create confusion regarding the Antidegradation Policy Implementation Procedures since a different but similar term is used and defined in that policy. *See* Hrg. Tr., Vol. II, 400:17-401:2 (Meyerhoff). For these reasons, the Commission finds that the proposed definition would not provide clarity or consistency.

50. Even in those documents where the term "effluent dominated" is used, NMED did not identify for the Commission where the term is used or provide any evidence how the definition is used. *See* Hrg. Tr., Vol. I, 297:10-24 (Lemon); Hrg. Tr., Vol. II, 406:11-14 (Meyerhoff); Hrg. Tr., Vol. II, 414:12-18 (DeRose-Bamman). Without understanding that context and the proposed future application of the definitions, the Commission will not adopt a universal term in a vacuum. *See* Hrg. Tr., Vol. II, 406:15-407:1 (Meyerhoff); Hrg. Tr., Vol. II, 413:15-21 (DeRose-Bamman). NMED is also not proposing an aquatic life designated use for effluent dominated waters. *See* Hrg. Tr., Vol. II, 397:20-22 (Meyerhoff); Hrg. Tr., Vol. II, 428:11-13 (Conn). The Commission

declines to adopt a definition without knowing how that definition will be applied. *See* Hrg. Tr., Vol. II, 413:22-24 (DeRose-Bamman).

51. Furthermore, the Commission finds that the proposed "effluent dominated" definition is unnecessary. Processes and analyses that would use the "effluent dominated" definition are conducted today by NMED. Hrg. Tr., Vol. I, 291:10-12, 292:3-9 (Lemon). And while the definition could be implemented through guidance by NMED (Hrg. Tr., Vol. I, 294:4-8 (Lemon)), the absence of one consistent definition is not likely to result in different impairment decisions because the term is not used in all surface water quality programs. Hrg. Tr., Vol. II, 419:15-19 (DeRose-Bamman).

52. The Commission has considered the alternative of adopting the "effluent dominated" definition, amended by deleting the value statement in the last sentence, as requested by LANL and the SJWC. *See* Hrg. Tr., Vol. II, 408:19-409:1 (Gallegos); Hrg. Tr., Vol. II, 415:5-416:5 (DeRose-Bamman). NMED provided no technical or other basis for retaining the value statement. *See* **NMED Ex. 1** (Lemon Direct); **NMED Ex. 9** (NMED's Proposed Amended Rule); (NMED's Revised Proposed Amended Rule); Hrg. Tr., Vol. II, 409:22-410:1 (Gallegos). The Commission supports the zero discharge policy goal described by LANL and supports evaluation by all NPDES permittees of ways to eliminate outfalls and reduce effluent discharges. Permittees have the right to consider recycling, zero discharge goals, and other approaches to meet water quality standards in the context of specific NPDES permitting discussions with NMED. However, in light of the Commission's decision to reject the proposed "effluent dominated" definition, the Commission finds that concerns about any requirement to continue permitted discharges in perpetuity need not be addressed.

D. 20.6.4.7(E) NMAC – definition of Existing Use

53. NMED did not propose any amendments to the definition of "existing use" in 20.6.4.7(E) NMAC. *See* **NMED Ex. 9** (NMED's Proposed Amended Rule) and **NMED's Ex. 110** (NMED's Revised Proposed Amended Rule). However, Amigos Bravos proposed to amend the definition by adding the following sentence: "An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975; or that the water quality is suitable to allow the use to be attained." **Amigos Bravos Ex. 1** (Proposed Amendments to 20.6.4 NMAC); **Amigos Bravos Ex. 3** at 13-14 (Conn Direct); and **Amigos Bravos Ex. 10** (Revised Proposed Amendments to 20.6.4 NMAC). LANL opposed that proposed amendment because it omitted key EPA language making it clear that an evaluation of an "existing use" has two key components—the actual use of the water and the water quality to protect that actual use. As to the latter component, EPA includes a qualifier "unless there are physical problems, such as substrate or flow, that prevent the use from being attained." **LANL Ex. 75** at 4 (EPA Water Quality standards Handbook, Chapter 4: Antidegradation); **LANL Ex. 58** at LANL-01109 (Meyerhoff Rebuttal). Amigos Bravos then withdrew the proposal to amend the "existing use" definition. **Amigos Bravos Ex. 24** (Second Revised Proposed Amendments to 20.6.4 NMAC).

54. The Commission finds that the current definition of "existing use" in 20.6.4.7(E) NMAC conforms to the EPA definition at 40 C.F.R. §131.3(e). Further, according to EPA guidance to states and tribes, existing uses should be described in terms of both actual use and water quality. **LANL Ex. 2** at 29 (Meyerhoff Direct); **LANL Ex. 32** at LANL-00574 (EPA Letter to State of Oklahoma Water Resources Board ("Smithee Letter")).

55. The Commission rejects the proposal from Amigos Bravos to amend the definition of "existing use" because it does not comport to the EPA definition and it has been withdrawn.

E. 20.6.4.7(L) NMAC – definition of Limited Aquatic Life

56. NMED proposed to amend the definition of "limited aquatic life" under 20.6.4.7(L)(2) NMAC to exclude "ephemeral/intermittent" hydrologic regimes. NMED Orig. Petition, filed Aug. 19, 2020; **NMED Ex. 9** (NMED's Proposed Amended Rule).

57. NMED's Amended Petition proposed an additional amendment to 20.6.4.7(L)(2) NMAC to add "low flow" to the listed conditions as follows:

> the surface water is capable of supporting only a limited community of aquatic life. This subcategory includes surface waters that support aquatic species selectively adapted to take advantage of naturally occurring rapid environmental changes [~~ephemeral or intermittent water~~] low flow, high turbidity, fluctuating temperature, low dissolved oxygen content or unique chemical characteristics.

NMED Amended Petition, filed March 12, 2021; **NMED Ex. 110** (NMED's Revised Proposed Amended Rule).

58. LANL witness Mr. Fulton stated in pre-filed Direct Technical Testimony that LANL supports NMED's proposal to add "low-flow" to the definition of "limited aquatic life" under 20.6.4.7(L)(2), *see* **LANL Ex. 6** at 8 (Fulton Direct), but recommended that all hydrologic regimes be included in the definition to "remain inclusive of the definition's meaning and to clarify that a particular hydrologic class would not preclude a water body to be designated as limited aquatic life." Hrg. Tr., Vol. II, 367:22-368:2 (Fulton). Specifically, Mr. Fulton recommended retaining "ephemeral or intermittent water" and adding "perennial" to the existing definition. **LANL Ex. 1** (Proposed Changes); **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC). Mr. Fulton further explained that including hydrologic regimes in the definition removes uncertainty in implementation by making clear that "limited aquatic life" may apply to surface waters of any

hydrology depending on site-specific characteristics. **LANL Ex. 6** at 9 (Fulton Direct); **LANL Ex. 62** at 9 (Fulton Rebuttal).

59. NMED through testimony of Ms. Fullam, objected to LANL's recommended changes to include all hydrologic regimes recognized in 20.6.4 NMAC. However, in response to LANL's testimony, Ms. Fullam clarified in rebuttal and on cross examination that NMED does not consider the list of conditions stated in the definition to be exhaustive and agrees with LANL that limited aquatic life may apply regardless of hydrologic regime. Hrg. Tr., Vol. II, 331:14-332:1, 342:10-343:6 (Fullam).

60. While LANL continues to disagree with NMED's position that retaining hydrologic regimes in the definition is unnecessary, LANL no longer opposes NMED's proposed amendments to 20.6.4.7(L)(2) because Ms. Fullam's testimony that, under NMED's interpretation, "Limited Aquatic Life" "may apply regardless of hydrologic regime" resolves LANL's concerns. Hrg. Tr., Vol. II, 370:7-11 (Fulton).

61. Therefore, the Commission finds that the proposed amendments to 20.6.4.7(L)(2) NMAC allow for "limited aquatic life" to apply regardless of hydrologic regime. The Commission concludes that the amendments should be adopted.

F. 20.6.4.7(M) NMAC – definition of Marginal Coldwater

62. NMED proposed to amend the existing definition of "Marginal Coldwater" under 20.6.4.7(M)(1) NMAC to remove numeric temperature criteria and intermittent/low flow hydrologic regime and add a "qualitative temporal variation allowance." NMED Orig. Petition, filed Aug. 19, 2020; **NMED Ex. 9** (NMED's Proposed Amended Rule); **NMED Ex. 4** at 5-7 (Fullam Direct); *see also* **LANL Ex. 6** at 5 (Fulton Direct). NMED's Petition states the reason for this proposal is to "clarify that this designated use is not limited to ephemeral or intermittent waters

and includes those conditions that distinguish it from a coldwater aquatic life use designation." NMED Orig. Petition, filed Aug. 19, 2020, at NMED SOR § 3(iii); **NMED Ex. 4** at 5 (Fullam Direct).

63. LANL and SJWC objected to removing numeric temperature criteria and hydrologic regimes on the basis that NMED has not provided a sufficient explanation for the changes or justified why NMED seeks to retain "intermittent low flow" in the definition of "marginal warmwater" but exclude the language from the nearly identical definition of "marginal coldwater." Hrg. Tr., Vol. II, 371:4-11 (Fulton); **SJWC Ex. 2** at 8-9 (DeRose-Bamann Direct); Hrg. Tr., Vol. II, 417:20-418:5 (DeRose-Bamann); *see also* Hrg. Tr., Vol. II, 343:22-344:9 (Fullam) (acknowledging that the real difference between marginal warmwater and marginal coldwater is the temperature criteria). LANL cautioned that excluding hydrologic regime from marginal coldwater and retaining hydrologic regime in marginal warmwater will create confusion as to how the terms will be applied and regulatory uncertainty. Hrg. Tr., Vol. II, 371-372 (Fulton); **LANL Ex. 6** at 5-6 (Fulton Direct).

64. The Commission agrees with LANL and SJWC and finds, contrary to NMED's statement of reasons for the proposed changes and supporting technical testimony, that the proposed changes do not improve "clarity" of the definition, do not add "consistency between definitions" and do not "aid in the implementation of the water quality standards." *See, e.g.*, **NMED Ex. 4** at 7 (Fullam Direct). The Commission further finds that retaining criteria in the definition for designated uses does not "render the definition lengthy and overly cumbersome for reference and implementation of water quality standards."

65. The Commission concludes that NMED's proposal to remove the language "intermittent or low flows, or other natural habitat" and "25°C (77°F)" from the definition of Marginal Coldwater is not supported and should not be adopted.

G. 20.6.4.7(A) and 20.6.4.15(A) NMAC – moving definition of UAA

66. LANL proposed to move the description of UAA out of 20.6.4.15(A) and add a new definition of UAA under 20.6.4.7(U)(2). **LANL Ex. 1** (Proposed Changes); **LANL Ex. 5** at 19:2-4 (Dail Direct); **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); Hrg. Tr., Vol. II, 375:19-23. LANL proposed that the term "UAA" be defined under 20.6.4.7(U) as follows:

> (2) "Use Attainability Analysis" means a structured scientific assessment of the factors affecting the attainment of the use, which include physical, chemical, biological, and economic factors as described in 40 CFR 131.10(g).

LANL Ex. 57 (Proposed Changes to 20.6.4 NMAC).

67. In support of this proposal, LANL witness Dr. Dail testified that UAA is "an important part of [NMAC] that is often looked to to adjust New Mexico's waters to more appropriate standards and associated criteria." Hrg. Tr., Vol. II, 375:24-376:5 (Dail). Defining UAA under 20.6.4.7(U) makes the definition easier to find and provides more clarity. Hrg. Tr., Vol. II, 375:24-376:5 (Dail).

68. NMED supports the amendment to 20.6.4.15(A) NMAC of moving the UAA definition and 20.6.4.7(U)(2) NMAC as proposed by LANL and no party objects to the proposal. Hrg. Tr., Vol. II, 339:9-14 (Fullam).

69. The Commission finds that LANL's proposal to move the definition of UAA from Section 15(A) to Section 7(U)(2) is unopposed, supported by uncontroverted evidence and should be adopted.

III. TOXIC POLLUTANTS & CONTAMINANTS OF EMERGING CONCERN

A. 20.6.4.13(F)(1) NMAC – Add CECs and 20.6.2 Toxic Pollutants; 20.6.4.7(C) NMAC – definition of "Contaminants of Emerging Concern"; and 20.6.4.7(T) NMAC – definition of "Toxic Pollutants"

70. NMED proposed to amend 20.6.4.13(F)(1) NMAC to add Contaminants of Emerging Concern ("CECs") and toxic pollutants listed in 20.6.2 NMAC to the Toxic Pollutant General Criteria as follows:

> [S]urface waters of the state shall be free of toxic pollutants, including but not limited to contaminants of emerging concern and those toxic pollutants listed in 20.6.2 NMAC, from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organism or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.

NMED Amended Petition, filed March 12, 2021, Proposed Amendments at 17; **NMED Ex. 9** at 17 (NMED's Proposed Amended Rule). NMED stated that the proposed language "will aid in implementing water quality standard and upholding the goals and objectives of the Clean Water Act. **NMED Ex. 2** at 4 (Barrios Direct).

71. NMED also proposed to amend 20.6.4.7(C)(7) NMAC to add the following proposed definition of "contaminants of emerging concern":

> Contaminants of emerging concern or CECs refer to water contaminants including, but not limited to, pharmaceuticals and personal care products that may cause significant ecological or human health effects at low concentrations. CECs are generally chemical compounds that, although suspected to potentially have impacts, may not have regulatory standards, and the concentrations to which negative impacts are observed have not been fully studied.

NMED Amended Petition, filed March 12, 2021, Proposed Amendments at 3; **NMED Ex. 9** at 3 (NMED's Proposed Amended Rule). Mr. Barrios testified that "[s]ince 'contaminants of emerging concern' is a proposed addition to the general criteria for toxic pollutants in 20.6.4.13(F)(1)

NMAC, a definition is necessary to provide an attributable reference. **NMED Ex. 2** at 4 (Barrios Direct). Mr. Barrios explained that "[a]lthough EPA has not developed numeric criteria for CECs, clarification that NMED's general criterion for toxic pollutants regulates this group of pollutants provides greater clarity for implementing water quality standards." **NMED Ex. 2** at 4 (Barrios Direct). NMED recognizes that "These compounds include pollutants that are known or suspected toxins but do not have numeric criteria." **NMED Ex. 2** at 3 (Barrios Direct).

72. LANL, SWJC, and NMMA opposed NMED's amendment to reference CEC in the toxic pollutant general criterion and define CEC. **LANL Ex. 5** at 10 (Dail Direct) (stating "LANL opposes inclusion of pollutants and contaminants not tied to the adoption of existing 304(a) criteria, or other scientifically defensible guidance . . . NMED's proposal "seeks to broaden even further without regulatory oversight, this group of unnamed chemicals . . . and further muddies the waters and creates additional regulatory uncertainty"); **LANL Ex. 5** at 6-7 (Dail Direct) (explaining that given "the possibly hundreds of pharmaceuticals, detergents, and other possible endocrine disruptors (and breakdown products thereof) that fall under the CEC definition, there is no indication what entity (state or regulated community, or both) will need to perform monitoring, and for which among these contaminants"); Hrg. Tr., Vol. II, 536 (Judd) (stating there are so many CECs including thousands of PFAS that "lack toxicological data for criteria development or assessment as to whether they are toxic pollutants"); **SJWC Ex. 2** at 8 (DeRose-Bamman Direct), 16-17 (objecting to reference to [CECs] because it "would allow NMED to regulate contaminants that are not routinely monitored, may not yet have regulatory standards, and may not yet have been fully studied to determine their negative impacts"); NMMA NOI at 4 (stating the "open-ended definition [of CEC], with its vaguely stated and unscientific operative phrase 'suspected to have impacts' is troublesome enough by itself. It is *highly objectionable* when one considers how the

phrase is substantively used . . . . This provision effectively could be construed as adding a broad range of ill-defined and not fully studied contaminants to the scope of "toxic pollutants" under the regulations, and worse, could create a surface water regulatory prohibition for them.").

73. LANL also opposed NMED's language referencing those toxic pollutants listed in the Commission's groundwater regulations, 20.6.2 NMAC "because some pollutants included in the list "lack EPA-promulgated guidance documents which determine numeric limits that are going to be use-specific to [the uses] covered in 20.6.4 NMAC" making it "unclear what numeric limits would apply to both state surveillance and NPDES discharges absent some consideration and promotion before this Commission." Hrg. Tr., Vol. II, 501-502 (Dail); s*ee also* **LANL Ex. 5** at 7 (Dail Direct) (noting that the criteria that is available for Toxic Pollutants listed in 20.6.2 is not listed in 20.6.2).

74. At hearing, Dr. Dail clarified that LANL does not oppose individually identifying each toxicant from the list of toxic pollutants in the ground water regulations, 20.6.2.7 NMAC, so long as it is clear that applicability is limited to human health-related designated uses. Hrg. Tr., Vol. II, 505:19-506:1 (Dail).

75. Amigos Bravos supported NMED's proposal to include CECs in the general criterion but proposed to amend NMED's definition of "Contaminants of Emerging Concern" in 20.6.4.7(C)(7) to include "additional per- and polyfluoroalkyl substances" ("PFAS") that "are not treated as 'toxic pollutants' by the department." **Amigos Bravos Ex. 9** at 8 (DeWitt Direct). Ms. DeWitt testified that:

> The inclusion of PFAS as CECs is supported by the U.S. PFAS Action Plan Program Update (U.S. EPA, 2020), which refers to PFAS as 'emerging contaminants.' In light of the prevalence of PFAS, their persistence in environmental media, and their potential for harm to human health and the environment, it is appropriate to highlight these compounds as examples of CECs in NMED's regulatory definition.

76. NMED adopted Amigos Bravos' recommendation on rebuttal to add "per- and polyfluoroalkyl substances" to the non-exhaustive list of contaminants identified in the NMED's proposed CEC definition but rejected the proposal to add language "not treated as toxic pollutants" to respond to NMMA's claim that the definition may allow arbitrary assignment of the "CEC" label to substances with no demonstrated environmental harm." *See* **NMED Ex. 107** at 4 (Barrios Rebuttal); **NMED Ex. 110** (NMED's Revised Proposed Amended Rule 20.6.4 NMAC).

77. In addition to general objection to the definition of CEC as unnecessary, LANL also opposed general inclusion of the exceedingly broad group of PFAS in the definition of CECs and by application inclusion of PFAS in the general criteria for Toxic Pollutants. **LANL Ex. 65** at 8, 10 (Judd Rebuttal) ("water quality standards, which are immediately enforceable, are [not] the appropriate tool for directing collection of [monitoring and characterization data to identify levels of PFAS and develop mitigation strategies that can prevent harm to human and ecological health); *id* at 8 (explaining that there are "several thousand PFAS compounds, the majority of which lack any toxicity data useful for criteria development or appropriate analysis . . . creating tremendous uncertainty for regulators and the regulated community").

78. LANL recognizes that the public is concerned about PFAS and the "growing body of toxicological data about them." However, there are several programs underway to "understand the environmental extent of these chemicals" Hrg. Tr., Vol. II, 536:8-16 (Judd) (providing examples that "EPA has proposed 29 PFAS be included in their unregulated contaminants monitoring rule" and "NMED is implementing a statewide program across 19 counties to assess the prevalence of PFAS").

79. In her rebuttal testimony, LANL witness Ms. Judd recognized that "scoping for the development of human health and aquatic life ambient water quality criteria for PFOA and PFOS is underway" by EPA. **LANL Ex 65** at 5 (Judd Rebuttal); **LANL Ex. 88**.

80. In rebuttal testimony, LANL witness Dr. Dail clarified that NMED's plan to "implement Standards based on definitions and/or referencing lists that also lack numeric criteria should not be included in changes to 20.6.4 NMAC at this time. Rather, the [Commission] should consider adding CECs or other non-numeric pollutants at a time when NMED has demonstrated scientifically supportable translators of the General Criteria, as they have in the past for Plant Nutrients." **LANL Ex. 61** at 4 (Dail Rebuttal).

81. LANL further explained in the post hearing legal argument that the Regulation, with or without NMED's proposed amendments, fails to provide a discernible criteria for a discharger to determine whether a pollutant or a combination of pollutants triggers the definition of toxic pollutant before being subjected to an enforcement action and/or civil and criminal penalties and is therefore unconstitutionally vague on its face and must be amended. *See Bokum Res. Corp. v. New Mexico Water Quality Control Comm'n*, 1979-NMSC-090, ¶ 17, 93 N.M. 546, 550 , 603 P.2d 285, 289; *Kerr-McGee Nuclear Corp. v New Mexico Water Quality Control Comm'n*, 1982-NMCA-015, ¶ 13, 98 N.M. 240, 244, 647 P.2d 873, 877.

82. NMED testified at hearing that it did not consider constitutional requirements or the impact of the WQA direct enforcement provision and penalties in developing the proposed changes to the general criteria for toxic pollutants. Hrg. Tr., Vol. II, 456-466 (Barrios).

83. To comport with Constitutional due process, LANL recommended that the Commission reject NMED's proposed definition of CEC at 20.6.4.7(C)(7) NMAC and not include reference to CEC in the Toxic Pollutants General Criteria and (2) revise the definition of "Toxic

pollutant" at 20.6.4.7(T)(2) NMAC, to be consistent with 40 C.F.R. § 131.3(d) and the Commission's approach to regulating toxic pollutants in the groundwater regulations, in the following manner:

> "Toxic pollutant" means those pollutants or combination of pollutants~~, including disease causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairments or physical deformation in such organisms or their offspring~~ listed by the EPA Administrator under section 307(a) of the federal Clean Water Act, 33 U.S.C. § 1313(a) or in the list below.

LANL Ex. 57at 4.

84. Based on evidence and testimony presented at hearing regarding accumulated toxicological data for PFAS compounds defined as toxic pollutants in 20.6.2 NMAC and potential affects beyond drinking water, in its post-hearing submissions LANL proposed additional modifications to its proposed definition of "Toxic Pollutant" to add two PFAS compounds for which EPA has signaled intent to develop human health and aquatic life criteria and are defined as toxic pollutants in 20.6.2 NMAC, to the list of toxic pollutants subject to a limitation that "pollutants listed as PFAS compounds do not apply to waters with a limited aquatic life designated use."

85. Based on Dr. Dail's testimony regarding the toxic pollutants listed in 20.6.2 NMAC, LANL also proposes to add the list of toxic pollutants in 20.6.2.7 NMAC to the list of toxic pollutants, subject to a limitation that "Toxic pollutants listed in 20.6.2.7 NMAC only apply to waters with a domestic water supply designated use." This latter list includes one additional PFAS compound, LANL therefore proposes the following revised definition of "Toxic Pollutant" to incorporate these post hearing modifications:

"Toxic pollutant" means those pollutants or combination of pollutants~~, including disease causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairments or physical deformation in such organisms or their offspring~~ listed by the EPA Administrator under section 307(a) of the federal Clean Water Act, 33 U.S.C. § 1313(a) or in the list below.

Persistent Toxics listed in 20.6.4.900.J NMAC

Antimony, dissolved (CAS 7440-36-0)
Arsenic, dissolved (CAS 7440-38-2)
Methylmercury (CAS 22967-92-6)
Nickel, dissolved (CAS 7440-02-0)
Selenium, dissolved (CAS 7782-49-2)
Thallium, dissolved (CAS 7440-28-0)
Zinc, dissolved (CAS 7440-66-6)
Aldrin (CAS 309-00-2)
Benzo(a)pyrene (CAS 50-32-8)
Chlordane (CAS 57-74-9)
4,4'-DDT (CAS number 50293)
4,4'-DDE (CAS number 72559)
4,4'-DDD (CAS number 72548).
Dieldrin (CAS 60-57-1)
Dioxin
Hexachlorobenzene (CAS 118-74-1)
Polychlorinated Biphenyls (PCBs) (CAS 1336-36-3)
Tetrachloroethylene (CAS 127-18-4)

PFAS Compounds [4]

Perfluorooctanoic acid (PFOA) (CAS 335-67-1)
Perfluorooctane sulfonate (PFOS) (CAS 1763-23-1)

Toxic Pollutants listed in 20.6.2.7 NMAC [5]

acrolein (CAS 107-02-8)
benzene and alkylbenzenes
    benzene (CAS 71-43-2)
    toluene (methylbenzene) (CAS 108-88-3)
    ethylbenzene (CAS 100-41-4)

[4] Pollutants listed as PFAS compounds do not apply to waters those with limited aquatic life designated use.
[5] Toxic pollutants listed in 20.6.2.7 NMAC only apply to waters with a domestic water supply designated use, with the exception of the PFAS compounds listed above.

xylenes (dimethyl benzene isomers): o-xylene (CAS 95-47-6); m-xylene (CAS 108-38-3) and p-xylene (CAS 106-42-3)

styrene (ethenylbenzene) (CAS 100-42-5)

chlorinated benzenes

monochlorobenzene (CAS 108-90-7)

1,2-dichlorobenzene (ortho-dichlorobenzene) (CAS 95-50-1)

1,4-dichlorobenzene (para-dichlorobenzene) (CAS 106-46-7)

1,2,4-trichlorobenzene (CAS 120-82-1)

1,2,4,5-tetrachlorobenzene (CAS 95-94-3)

Pentachlorobenzene (CAS 608-93-5)

hexachlorobenzene (CAS 118-74-1)

chlorinated phenols

2,4-dichlorophenol (CAS 120-83-2)

2,4,5-trichlorophenol (CAS 95-95-4)

2,4,6-trichlorophenol (CAS 88-06-2)

pentachlorophenol (PCP) (CAS 87-86-5)

chloroalkyl ethers

bis (2-chloroethyl) ether (CAS 111-44-4)

bis (2-chloroisopropyl) ether (CAS 108-60-1)

bis (chloromethyl) ether (CAS 542-88-1)

1,2-dichloropropane (propylene dichloride, PDC) (CAS 78-87-5)

dichloropropenes (CAS 542-75-6)

1,4-dioxane (CAS 123-91-1)

halogenated ethanes

1,2-dibromoethane (ethylene dibromide, EDB) (CAS 106-93-4)

1,1-dichloroethane (1,1-DCA) (CAS 75-34-3)

1,2-dichloroethane (ethylene dichloride, EDC) (CAS 107-06-2)

1,1,1-trichloroethane (TCA) (CAS 71-55-6)

1,1,2-trichloroethane (1,1,2-TCA) (CAS 79-00-5)

1,1,2,2-tetrachloroethane (CAS 79-34-5)

hexachloroethane (CAS 67-72-1)

halogenated ethenes

chlorothene (vinyl chloride) (CAS 75-01-4)

1,1-dichloroethene (1,1-DCE) (CAS 75-35-4)

trans-1,2-dichloroethene (trans-1,2-DCE) (CAS 156-60-5)

trichloroethene (trichloroethylene, TCE) (CAS 79-01-6)

tetrachloroethene (perchloroethylene, PCE) (CAS 127-18-4)

halogenated methanes

bromodichloromethane (CAS 75-27-4)

bromomethane (CAS 74-83-9)

chloromethane (CAS 74-87-3)

dichlorodifluoromethane (fluorocarbon-12) (CAS 75-71-8)

dichloromethane (methylene chloride) (CAS 75-09-2)

tribromomethane (bromoform) (CAS 75-25-2)

trichloromethane (chloroform) (CAS 67-66-3)

tetrachloromethane (carbon tetrachloride) (CAS 56-23-5)

trichlorofluoromethane (fluorocarbon-11) (CAS 75-69-4)
hexachlorobutadiene (CAS 87-68-3)
isophorone (CAS 78-59-1)
methyl tertiary-butyl-ether (MTBE) (CAS 1634-04-4)
nitroaromatics and high explosives (HE)
nitrobenzene (CAS 98-95-3)
2,4-dinitrotoluene (2,4-DNT) (CAS 121-14-2)
2,6-dinitrotoluene (2,6-DNT) (CAS 606-20-2)
octrahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) (CAS 2691-41-0)
hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) (CAS 121-82-4)
2,4,6-trinitrotoluene (TNT) (CAS 118-96-7)
2,4-dinitro-o-cresol (CAS 534-52-1)
dinitrophenols (CAS 51-28-5)
nitrosamines
N-nitrosodiethylamine (CAS 55-18-5)
N-nitrosodimethylamine (CAS 62-75-9)
N-nitrosodibutylamine (CAS 924-16-3)
N-nitrosodiphenylamine (CAS 86-30-6)
N-nitrosopyrrolidine (CAS 930-55-2)
perchlorate (CAS 14797-73-0)
perfluorinated-chemicals (PFCs)
perfluorohexane sulfonic acid (PHHxS) (CAS 355-46-4)
Perfluorooctanesulfonic acid (PFOS) (CAS 1763-23-1)
perfluorooctanoic acid (PFOA) (CAS 335-67-1)
pesticides
Aldrin (CAS 309-00-2)
atrazine (CAS 1912-24-9)
chlordane (CAS 57-74-9)
dieldrin (CAS 60-57-1)
endosulfan (CAS 115-29-7)
endrin (CAS 72-20-8)
heptachlor (CAS 76-44-8)
hexachlorocyclohexane (HCH, lindane): alpha-HCH (CAS 319-84-6); beta-HCH (CAS 319-85-7); gamma-HCH (CAS 58-89-9); and, technical-HCH (CAS 608-73-1)
prometon (CAS 1610-18-0)
toxaphene (CAS 8001-35-2)
phenol (CAS 108-95-2)
phthalate esters
dibutyl phthalate (CAS 84-74-2)
di-2-ethylhexyl phthalate (DEHP) (CAS 117-81-7)
diethyl phthalate (DEP) (CAS 84-66-2)
dimethyl phthalate (DMP) (CAS 131-11-3)
polycyclic compounds
benzidine (CAS 92-87-5)
dichlorobenzidine (CAS 91-94-1)
diphenylhydrazine (CAS 122-66-7

polychlorinated biphenyls (PCBs) (CAS 1336-36-3)
polynuclear aromatic hydrocarbons (PAHs)
anthracne (CAS 120-12-7)
benzo(a)pyrene (CAS 50-32-8)
3,4-benzofluoranthene (CAS 205-99-2)
benzo(k)fluoranthene (CAS 207-08-9)
fluoranthene (CAS 206-44-0)
fluorene (CAS 86-73-7)
naphthalene (CAS 91-20-3)
1-methylnaphthalene (CAS 90-12-0)
2-methylnaphthalene (CAS 91-57-6)
phenanthrene (CAS 85-01-8)
pyrene (CAS 129-00-0)
thiolane 1,1 dioxide (sulfolane) (CAS 126-33-0)

86. The Commission finds that the proposed amendments to 20.6.4.13(F)(1) NMAC offered by NMED, read with the existing definition of "toxic pollutant" under 20.6.4.7(T)(2) NMAC and the proposed definition of CECs under 20.6.4.7(C)(7) NMAC, fail to provide constitutionally adequate notice of compounds that trigger the label toxic pollutants before subjecting dischargers to enforcement or penalties for an enforcement violation under Sections 74-6-10(A), -10.1(B), and -10.2(A)(1) of the New Mexico Water Quality Act, as required under *Bokum Res. Corp. v. New Mexico Water Quality Control Comm'n*, 1979-NMSC-090, ¶ 17, 93 N.M. 546, 550 , 603 P.2d 285, 289; *Kerr-McGee Nuclear Corp. v New Mexico Water Quality Control Comm'n*, 1982-NMCA-015, ¶ 13, 98 N.M. 240, 244, 647 P.2d 873, 877.

87. The Commission therefore rejects NMED's proposed changes to 20.6.4.13(F)(1) NMAC. Because the proposal to include CEC in the general criteria for Toxic Pollutants is rejected, the Commission finds it is unnecessary to define CECs in the Standards. The Commission therefore rejects NMED's proposal to define CEC under 20.6.4.7(C)(7) NMAC.

88. The Commission also finds that including general reference to PFAS in the general criteria for toxic pollutants is not supported by credible science and will create uncertainty for regulators and the regulated community. The proposal is therefore rejected.

89. The Commission finds LANL's proposed modifications to the Toxic Pollutant definition and General Criteria for Toxic Pollutants is supported by credible scientific technical testimony. The Commission finds that LANL's proposal provides regulatory certainty and a clear, defensible path for the Commission to address constituents that should be recognized to be of significant concern in surface waters across New Mexico.

90. The Commission finds that LANL's proposal is also most protective of New Mexico waters because it includes in the list of toxic pollutants, those pollutants the Commission has already labeled persistent toxic pollutants.

91. The Commission finds that LANL's proposed amendments provide a process for adding CECs or other non-numeric pollutants to the list as NMED is able to "demonstrate[] scientifically supportable translators of the General Criteria" **LANL Ex. 61** at 4 (Dail Rebuttal). The Commission concludes that LANL's proposed modifications as reflected in the Proposed Final Rule submitted by LANL should be adopted.

IV. COMPLIANCE WITH WATER QUALITY STANDARDS

A. 20.6.4.11(G) NMAC – Human Health-Organism Only; amending to only be applicable when there is fish consumption

92. 20.6.4.11(G) provides that HH-OO criteria for persistent organic pollutants, as identified in 20.6.4.900(J) NMAC apply to all tributaries of waters with designated, existing or attainable aquatic life use. **LANL Ex. 6** at 16 (Fulton Direct).

93. LANL witness Mr. Fulton testified that HH-OO criteria for persistent toxic pollutants should not be required to apply to all tributaries of waters with designated, existing, or

attainable aquatic life use because such tributaries "might be fishless, or support only limited populations of fish or shellfish due to natural low flow conditions or habitat and would therefore, not support a fish consumption use." **LANL Ex. 6** at 16 (Fulton Direct); **LANL Ex. 62** at 15 (Fulton Rebuttal).

94. Mr. Fulton explained that, in designating uses of a water body and the appropriate criteria for those uses, 40 C.F.R. Section 131.10(b) requires New Mexico, "to take into consideration the water quality standards of downstream waters and ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters." Mr. Fulton thus explained that "as long as fish consumption and HH-OO criteria are being met in downstream waters, there are situations where modifying or removing HH-OO criteria in tributaries would still be protective of downstream users and consistent with federal regulations. Similarly, where the tributary flow does not have reasonable potential to cause or contribute to the downstream failure to meet the HH-OO criteria, modifying or removing HH-OO criteria in tributaries would still be protective of downstream uses and consistent with federal regulations. **LANL Ex. 62** at 15-16 (Fulton Rebuttal).

95. LANL therefore proposed to amend 20.6.4.11(G) NMAC as follows:

> Human health-organism only criteria in Subsection J of 20.6.4.900 NMAC apply to those waters with a designated, existing or attainable ~~aquatic life~~ fish consumption use. If a tributary does not have an attainable fish consumption use, then HH-OO criteria do not apply to the tributary. If the fish consumption designated use is not attained in the first downstream segment with an attainable fish consumption designated use, then the tributary should be assigned a load allocation as required by 40 CFR Part 130. ~~When limited aquatic life is a designated use, the human health-organism only criteria apply only if adopted on a segment-specific basis. The human health-organism only criteria for persistent toxic pollutants, as identified in Subsection J of 20.6.4.900 NMAC, also apply to all tributaries of waters with a designated, existing or attainable aquatic life use.~~

96. Mr. Fulton testified that this amendment 20.6.4.11(G) remains protective of human-health uses while allowing adjustment to HH-OO for persistent toxic pollutants in tributaries where downstream waters support HH-OO criteria." **LANL Ex. 62** at 15 (Fulton Rebuttal).

97. LANL's proposal was objected to by NMED and CCW-GRIP. *See* **NMED Ex. 107** (Barrios Rebuttal); **CCW-GRIP Ex. 5** (Homer Rebuttal).

98. At hearing, Mr. Fulton first addressed the objection that New Mexico does not have a 'fish consumption' designated use explaining that "The purpose of HH-OO criteria is specifically to protect against the consumption of fish or shellfish; that is, fish consumption is the sole route of exposure used in the calculation of HH-OO criteria. And so, while the WQS do not define "fish consumption" as a designated use, HH-OO criteria are derived, and intended, to explicitly to protect this use." Hrg. Tr., Vol. III, 812:1-7 (Fulton).

99. Mr. Fulton then explained that in the case where a fishless tributary may not meet the HH-OO criteria, but the downstream waters may meet the HH-OO criteria, "the tributary would be 303(d)-listed and NMED would need to develop a TMDL and load allocation to protect a beneficial use that does not exist in the tributary." Hrg. Tr., Vol. III, 813-14 (Fulton). Similarly, in a case where "the downstream water may not meet the HH-OO criterion due to upstream sources, or sources unrelated to a given tributary, and that tributary may have no reasonable potential to cause or contribute to this exceedance . . . the tributary would be 303(d)-listed and targeted for a load allocation/TMDL to mitigate a non-existing source, or a source that does not contribute to the HH-OO exceedance in the downstream water." Mr. Fulton testified that this would be a misuse of NMED resources." Hrg. Tr., Vol. III, 814:6-7 (Fulton).

100. Finally, Mr. Fulton explained that LANL's objective is to allow for exceptions on a site-specific basis "if a demonstration could be made to the satisfaction of the Commission and

following review from the Department and the public that all actual existing or attainable uses are protected in both the tributary and the downstream water." Hrg. Tr., Vol. III, 814:8-16 (Fulton). At hearing, LANL recommended revising its proposal in response to evidence and testimony from other parties. Hrg. Tr., Vol. III, 814:23-815:4 (Fulton). LANL's final proposed amendments to Section 20.6.4.11(G) are as follows:

> Human health-organism only criteria in Subsection J of 20.6.4.900 NMAC apply to those waters with a designated, existing or attainable aquatic life use. When limited aquatic life is a designated use, the human health-organism only criteria apply only if adopted on a segment-specific basis. The human health-organism only criteria for persistent toxic pollutants, as identified in Subsection J of 20.6.4.900 NMAC, also apply to all tributaries of waters with a designated, existing or attainable aquatic life use <u>unless the Water Quality Control Commission determines the human health organism only criteria do not apply on a site-specific basis.</u>

101. The Commission finds that LANL's recommendation as reflected in the Proposed Final Rule submitted by LANL to add language to Section 20.6.4.11(G) NMAC is supported by the weight of evidence, will serve the interests of transparency to the Commission and regulated, interested parties and should be adopted. The Commission also finds that this amendment will have no impact on waters presently subject to HH-OO criteria without a petition to the Commission and the Commission is bested with the authority to consider site-specific exceptions.

B. 20.6.4.12(E) NMAC and 20.6.4.14(A) – Establishing WQ criterion (MQL); Implementing 40 C.F.R. Part 136

102. LANL proposes to amend 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC to require the use of 40 C.F.R. part 136 ("Part 136") approved methods for NPDES compliance determinations and CWA Section 401 state certifications; and incorporate the 40 C.F.R. § 122.44 definition of "sufficiently sensitive" into the WQS. Hrg. Tr., Vol. III, 766 (Toll); **LANL Ex. 7** (Toll Direct); **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC).

103. Specifically, LANL proposes to amend 20.6.4.12(E) NMAC to replace the undefined term "minimum quantification level" with "lowest minimum level (ML) of the analytical methods approved by EPA under 40 C.F.R. part 136 for the measured pollutant or pollutant parameter" and to add language clarifying that "in cases in which the WQCC establishes a numeric water quality criterion at a concentration that is below the ML of the EPA-approved analytical methods, the water quality standard is enforceable not at the numeric water quality criterion, but at the lowest ML of the 40 C.F.R. part 136 approved methods." **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); **LANL Ex. 7** at 6 (Toll Direct); *see also* ***id***. at 5-6

104. LANL also proposed to amend 20.6.4.14(A) NMAC to require use of Part 136 approved methods for NPDES compliance determination and Section 401 CWA state certifications. **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); **LANL Ex. 7** at 10 (Toll Direct).

105. Finally, LANL proposes to define "sufficiently sensitive" under 20.6.4.7(S) NMAC using the EPA definition under 40 C.F.R. § 122.44(i)(1)(iv). **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); Hrg. Tr., Vol. III, 770:9-14 (Toll); **LANL Ex. 7** at 11 (Toll Direct).

106. LANL witness Dr. Toll explained that these amendments seek to conform New Mexico WQS requirements for analytical methods and use of analytical methods for compliance purposes to federal law. The anticipated effect of these changes is (1) elimination of ambiguity about compliance monitoring obligations and (2) clarification to how the Commission's numeric criteria should be applied in situations where the criterion is less than the ML of the required method. **LANL Ex. 7** at 5, 9 (Toll Direct).

107. Dr. Toll explained on cross examination, LANL's proposal to conform New Mexico WQS requirements for analytical methods to federal law does not address analytes with

no approved Part 136 method and is thus consistent with the EPA regulation allowing EPA or NMED to select a test method for analytes that do not have an approved Part 136 method. Hrg. Tr., Vol. III, 771:20-772:4, 777:6-16 (Toll). *See also* 40 C.F.R. § 122.44(i)(1)(iv)(B) ("Where no other EPA–approved methods exist, the Director should select a method consistent with 40 C.F.R. § 122.44(i)(1)(iv)(B).").

108. Dr. Toll also testified that LANL's proposal does not address or seek to impede NMED's ability to apply for approval of an alternative test method under the defined process in Part 136 for analytes with an approved Part 136 method. Hrg. Tr., Vol. III, 772:5-14 (Toll).

109. Dr. Toll clarified that LANL is only proposing to require Part 136 approved methods for NPDES compliance and Section 401 state certifications. Hrg. Tr., Vol. III, 766:7-13 (Toll). LANL's proposal does not affect the monitoring methods that may be used for non-enforcement purposes.

110. Based on testimony and evidence presented at hearing, LANL recommends that 20.6.4.14(A) NMAC be further amended as follows:

> 40 CFR Part 136 approved methods shall be used to determine compliance with these standards and in Section 401 certifications under the federal Clean Water Act. In cases of pollutants for which there are no approved methods under 40 CFR Part 136, analyses shall be conducted according to a test procedure specified in the applicable permit or 401 certification. Where 40 CFR Part 136 approved methods are not required, sampling and analytical techniques shall conform with methods described in the following references unless otherwise specified by the commission pursuant to a petition to amend these standards:

111. LANL has presented substantial, credible evidence to support its proposed amendments. **LANL Ex. 7** at 5-9 (Toll Direct); **LANL Ex. 52** (U.S. EPA Website, How to Get Methods Approved). Section 304(h) of the CWA requires EPA to promulgate the analytical methods that regulated entities must use when analyzing the chemical properties of environmental samples for reporting under the NPDES permit program. **LANL Ex. 7** at 6 (Toll Direct). 40

C.F.R. 122.44(i)(1)(iv) provides that each NPDES permit includes requirements to monitor compliance with effluent limitations "[a]ccording to test procedures approved under Part 136 for the analyses of pollutants having approved methods under that part, and according to a test procedure specified in the permit for pollutants with no approved methods." ***Id***. at 6. To assure compliance with effluent limitations, the permit must include requirements to monitor "[a]ccording to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters." ***Id***. at 6. 40 C.F.R. § 136.1(a) required Part 136 methods to "be used to perform the measurements indicated whenever the waste constituent specified is required to be measured for: (3) Certifications issued by States pursuant to section 401 of the Clean Water Act (CWA), as amended." ***Id***. at 6. EPA's Office of Water considers new methods and modifications to existing methods from two major sources: Alternative Test Procedures ("ATP") and voluntary consensus standards bodies ("VCSBs"). *See* **LANL Ex. 52** (U.S. EPA Website, How to Get Methods Approved); **LANL Ex. 7** at 7 (Toll Direct). EPA periodically combines new methods and modifications to existing methods in a Methods Update Rule ("MUR"). Once EPA promulgates final rules, it codifies the approved methods at 40 C.F.R. Part 136. *See* **LANL Ex. 7** at 7 (Toll Direct).

112. Dr. Toll testified that a rigorous, inclusive process is used to approve methods for use in compliance determinations and methods that do not survive that rigorous process are not appropriate for that use. **LANL. Ex. 7** at 8 (Toll Direct). An example of a draft rule that was not approved is Method 1668C, which did not withstand scrutiny. ***Id***. at 8. Thus, it is appropriate to require the use of approved methods for 401 certifications because Section 304(h) of the CWA requires EPA to "promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided any certification pursuant to [section 401 of

the Clean Water Act.]" ***Id***. at 9. As a whole, the revision clarifies how the Commission's numeric criteria should be applied in situations where the criterion is less than the ML of the required method. ***Id.*** at 9.

113. The Commission finds that the testimony and conclusions of LANL's witness Toll is credible and that the weight of evidence supports LANL's proposal to amend 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC.

114. The Commission rejects NMED's arguments that LANL's proposed amendments to 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC are not a logical outgrowth of NMED's petition.

115. The Commission acknowledges and agrees that NMED can use ATPs for analytes for which no Part 136 approved method exists, but they must file an application with EPA Region 6 for limited use approval. Hrg. Tr., Vol. III, 771:21-772:9 (Toll). Moreover, "that application has to be approved in accordance with 40 C.F.R. Section 136.5, and an EPA Region 6 Alternative Test Procedure coordinator has to verify that requirements for establishing equivalence performance at Section 136.6(b)(2)(i) have been met." *Id.* at 772:9-14. Accordingly, the Commission finds that NMED's objection to LANL's proposed amendments to Section 12(E) are unfounded.

116. The Commission rejects Amigos Bravos' argument that LANL's proposal allows LANL to evade monitoring for PCBs, PFAs, and weakens water-quality protection statewide. Hrg. Tr., Vol. III, 837:4-845:4 (Conn). In the same vein, the Commission also rejects the Buckman Direct Diversion Board's argument that LANL's proposal allows PCB's that are detectable and enforceable under current rules to be undetectable and unenforceable going forward. *See id*. at 822:19-24. LANL witness Toll testified that Amigos Bravos witness Conn's argument is normative and not based on the authority that states have. Hrg. Tr., Vol. III, 772:17-19 (Toll). The

Commission acknowledges that EPA chose not to approve Method 1668C for use in compliance monitoring or 401 certifications in its 2010, 2017, and 2021 Method Update Rules. *Id*. at 773:22-774:3. As articulated by Dr. Toll, "Method 1668C is not a Part 136 approved method so it's not allowed for compliance monitoring or 401 certification unless an application for limited use approval has been filed and approved in accordance with 40 C.F.R. Section 136.5 and requirements for establishing equivalent performance at 136.6(b)(2)(i) have been met." *Id*. at 774:17-23.

117. The Commission finds that LANL's proposal to amend 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC is the most logical proposal because it codifies that 40 C.F.R. Part 136 methods are approved for 401 certifications and NPDES compliance determinations, and methods that are not approved under 40 C.F.R. Part 136 are not appropriate for that use. Accordingly, the Commission adopts LANL's proposed amendments to 20.6.4.12(E) NMAC and 20.6.4.14(A) as reflected in the Proposed Final Rule submitted by LANL.

C. 20.6.4.7(S) NMAC – definition of "Sufficiently Sensitive"

118. LANL proposes to define "sufficiently sensitive" under 20.6.4.7(S) NMAC using the EPA definition under 40 C.F.R. § 122.44(i)(1)(iv). **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); Hrg. Tr., Vol. III, 770:9-14 (Toll); **LANL Ex. 7** at 11 (Toll Direct). The Commission finds that LANL's proposed Section 7(S) is well-taken and supported by the weight of the evidence, and the Commission hereby adopts the proposal as reflected in the Proposed Final Rule submitted by LANL.

119. The purpose of the amendment is to clarify the meaning of an undefined term in LANL's recommended changes to 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC. *See* **LANL Ex. 7** at 10 (Toll Direct).

120. On August 19, 2014, EPA amended existing NPDES application, compliance monitoring, and analytical methods regulations; it codified that only "sufficiently sensitive" methods be used for analyses of pollutants or pollutant parameters under an NPDES permit. ***Id.*** at 11. The definition was developed to be consistent with the above-cited EPA rulemaking. ***Id.*** at 11. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); *see also* Hrg. Tr., Vol. III, 770:13-14 (Toll) (explaining that the proposal enters into the Standards the definition that is in the law).

121. The Commission finds that LANL's proposal will make the Standards consistent with federal regulations and improve clarity and regulatory certainty.

122. The Commission rejects NMED's argument that Section 7(S) is not a logical outgrowth of NMED's Petition and subsequent amendments. NMED witness Lemon failed to address the technical merits of the proposal and subsequently dismissed the proposal because of evidence seemingly rebutting 20.6.4.12(E) NMAC and 20.6.4.14(A) NMAC, finding the definition unnecessary. Hrg. Tr., Vol. III, 725:11-16 (Lemon). The Commission finds that NMED's position is not supported in law or fact.

D. 20.6.4.12(G) NMAC – Compliance schedules; Implementing 40 C.F.R. Part 136 instead of MQL

123. NMED originally proposed to amend section 20.6.4.12(G) NMAC ("Section 12(G)") to amend language to clarify that compliance schedules for NPDES permits are allowed on a case-by-case basis. *See* NMED Orig. Petition, filed August 19, 2020. NMED maintained this proposal in its Amended Petition. *See* NMED Amended Petition, filed March 12, 2021; **NMED Ex. 110** (NMED's Revised Proposed Amended Rule). NMED subsequently testified that NMED proposes "to amend the language in 12(G) to reflect the appropriate application of the section related to compliance schedules. This includes removing the reference to the Commission's policy . . . Although it is within the Commission's authority to include compliance

schedules on a case-by-case basis, NMED is unaware and could not find a policy as currently referenced in 20.6.4.12(G) NMAC. Therefore, NMED reworded language to reflect actual implementation." Hrg. Tr., Vol. III, 715:11-25 (Lemon).

124. LANL supported NMED's original proposal. *See* **LANL Ex. 7** at 4 (Toll Direct).

125. The Commission finds that NMED's revisions to Section 12(G) are well-taken and supported by the weight of the evidence, and the Commission hereby adopts such changes as reflected in the Proposed Final Rule submitted by LANL.

E. 20.6.4.14(F) NMAC – Monitoring: whether to add monitoring for CECs

126. Amigos Bravos originally proposed to add 20.6.4.14(F) NMAC ("Section 14(F)") to include sampling and monitoring requirements as a condition in federal permits. *See* **Amigos Bravos Ex. 3** at 6-10 (Conn Direct). Amigos Bravos argues that NMED may include sampling and monitoring of CECs as a condition in a federal permit under Section 401 of the federal Clean Water Act. Under cross-examination at the hearing, NMED witness Lemon testified that NMED has the authority to monitor and understand CECs and, more specifically, per- and polyfluoroalkyl substances ("PFAs") under the narrative toxic pollutant general criterion. *See* Hrg. Tr., Vol. III, 720:8-722:24, 760:3-11 (Lemon). Although NMED neither proposed amendments to Section 14 nor adopted Amigos Bravos' proposal in NMED Exhibit 110, it does not oppose Amigos Bravos' proposal. *Id*. at 720:19-21, 721:14-21 (Lemon).

127. LANL objected to Amigos Bravos' proposal. *See* **LANL Ex. 63** (Toll Rebuttal). LANL witness Toll explained that recent EPA guidance from the EPA Assistant Administrator for the Office of Water to EPA Regional Administrators provides a basis for evaluating whether an alternative test procedure ("ATP") is suitable for including sampling and monitoring of CECs as a condition in a federal permit under Section 401 of the CWA. *See* ***id***. at 17. ATPs for CECs

generally will not satisfy the presence threshold criterion specified in recent EPA guidance. Even if a particular ATP meets the presence threshold criterion, it will not satisfy the reliability criteria at this time. *See* ***id***. at 17-18; *see also* **LANL Ex. 85** (EPA Memo re: Recommendations from the PFAS NPDES Regional Coordinators Committee).

128. The Commission finds that LANL's objections to Section 14(F) are well-taken and supported by the weight of the evidence, and the Commission hereby rejects such changes offered by Amigos Bravos as reflected in the Proposed Final Rule submitted by LANL.

129. In this Triennial Review, Amigos Bravos added Section 14(F) for NMED to include sampling and monitoring of CECs as a condition in a federal permit under Section 401 of the Clean Water Act. *See* **Amigos Bravos Ex. 3** at 6-10 (Conn Direct). At the hearing, NMED witness Lemon summarized the proposal by stating that Amigos Bravos asserts that NMED has regulatory authority to require dischargers that have permits under the federal Clean Water Act to monitor PFAs. Hrg. Tr., Vol. III, 720:24-721:5 (Lemon). She also repeated Amigos Bravos' testimony that "it is well-established that PFAs are contaminants of emerging concern and giving the Department authority to monitor for these pollutants will help further our understanding of the prevalence of these compounds in the waste stream and in the environment." *Id*. at 721:6-11 (Lemon).

130. The Commission finds that Amigos Bravos' proposed Section 14(F) and NMED's tacit approval of Amigos Bravos' proposal is inappropriate. Section 14(F) exceeds NMED's authority under Section 401 of the federal CWA and 20.6.2.2001 NMAC. In addition, NMSA 1978, Section 74-6-9(B) authorizes constituent agencies to "develop facts and make studies and investigations." The Commission notes that the NMED Drinking Water Bureau (https://www.env.nm.gov/pfas/data/) and NMED Oversight Bureau are examples of constituent

agencies currently undertaking such studies, in particular of PFAS. NMSA 1978, Section 74-6-9(B) does not, however, authorize the Commission to task regulated entities to perform those functions.

131. LANL has presented substantial, credible data to support its objections to NMED's amended proposal. **LANL Ex. 63** at 14-19 (Toll Rebuttal); **LANL Ex. 85** (EPA Memo re: Recommendations from the PFAS NPDES Regional Coordinators Committee). LANL witness Dr. Toll explained that in the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. Part 136 or 40 C.F.R. chapter I, subchapters N and O, monitoring is conducted according to the test procedure specified in the permit. **LANL Ex. 63** at 15-16 (Toll Rebuttal). 40 C.F.R. § 146.5 specifies the process for approval of ATPs for limited use. While 40 C.F.R. § 136.5 does not establish technical criteria for adopting an ATP, a recent November 22, 2020, memorandum from the EPA Assistant Administrator for the Office of Water to EPA Regional Administrators provides guidance on the Office of Water's interim strategy for PFAs in federally issued NPDES permits and its recommendations are generally applicable. ***Id***. at 16; *see also* **LANL Ex. 85** (EPA Memo re: Recommendations from the PFAS NPDES Regional Coordinators Committee). This guidance describes when EPA NPDES permit writers might consider incorporating permit requirements for monitoring PFAs. **LANL Ex. 63** at 16 (Toll Rebuttal). The memorandum recommends a phased approach to any potential PFAs monitoring provisions, such that monitoring requirements are not triggered until after EPA's multi-lab validated methods are available to the public. ***Id***. at 17. EPA's guidance provides a basis for evaluating whether an ATP is suitable for sampling and monitoring CECs as a permit condition under Section 401 of the federal CWA. The CEC should satisfy the presence threshold criterion and reliability criteria. *See* ***id***. at 17. Based on this EPA guidance, LANL's witness testified that

CEC ATPs generally will not satisfy the presence threshold criterion, but even if a particular ATP meets that criterion, it will not satisfy the reliability criteria. ***Id***. at 18. Therefore, LANL opposed Amigos Bravos' proposed Section 14(F). ***Id***. at 18.

132. The Commission finds that the testimony and conclusions of Dr. Toll are credible and that the weight of evidence supports LANL's objections to the proposed Section 14(F).

133. The Commission rejects NMED's argument that NMED has the authority under the narrative toxic pollutant general criterion to require permittees to monitor CECs and PFAS in federal permits issued pursuant to Section 401 of the federal Clean Water Act. *See* Hrg. Tr., Vol. III, 720:8-722:24, 760:3-11 (Lemon). LANL witness Toll testified under oath that Section 14(F) exceeds NMED's authority under Section 401 of the federal CWA and 20.6.2.2001 NMAC, and conflicts with Section 74-6-9(B). Accordingly, the Commission finds that Section 14(F) should not be adopted.

V. REVIEW OF STANDARDS AND UAA PROCESS

A. 20.6.4.10(B)-(D) NMAC – clarifying types of amendments

133. NMED proposed a new section B, proposed to renumber the former section B to C, and proposed amendments to section C of 20.6.4.10 NMAC. NMED Orig. Petition, filed August 19, 2020, NMED SOR, §§ 8, 9. NMED supported its proposals stating they would clarify: "the required process for amending a designated use where the existing use is more stringent than the designated use in accordance with 40 C.F.R. 131.10(i)" (NMED SOR, § 8); and "how a designated use or numeric criterion can be amended to be less stringent" (NMED SOR, § 9). LANL and SJWC proposed numerous revisions and recommended that the Commission adopt a provision to specify the required elements of and procedures for conducting an existing use analysis ("EUA"). LANL recommended deleting 20.6.4.10(C) NMAC. In its Amended Petition, NMED made further

changes to sections B and C and proposed to move the last sentence of C to a new section D. *See* NMED Amended Petition, filed March 12, 2021; **NMED Ex. 9** (NMED's Proposed Amended Rule). SJWC recommended deleting proposed new section 20.6.4.10(D) NMAC as redundant of UAA provisions in 20.6.4.15 NMAC. In its rebuttal proposal, NMED proposed additional amendments to 20.6.4.10(B) and 20.6.4.10(C) NMAC. **NMED Ex. 110** (NMED's Revised Proposed Amended Rule). LANL recommends that the Commission delete a portion of the second sentence of 20.6.4.10(C) NMAC. Hrg. Tr., Vol. IV, 1077:2-15 (Toll). LANL supports section D. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC). LANL's proposed amendments to 20.6.4.10(B) and (C) NMAC are shown below and presented in LANL's Proposed Final Rule:

> **20.6.4.10**. **Review Of Standards; Need For Additional Studies:**
> **B.** In accordance with 40 CFR 131.10, when an existing use of a water, as defined under 20.6.4.7 NMAC, requires a higher level of protection than the current designated use and new supporting evidence demonstrates the presence of that use, the designated use shall be amended accordingly to protect the existing use. This action can only be taken after the commission has established formal procedures, through the water quality management plan continuing planning process, to amend a designated use that is found to be less restrictive than an existing use. The process described in this section may not be used where the commission has already made a determination concerning the existing use of classified waters of the state.
>
> **C.** It is recognized that, in some cases, numeric criteria ~~have been adopted that reflect use designations rather than existing conditions of surface waters of the state.~~ for a particular designated use may not adequately reflect the local conditions or the aquatic communities adapted to those localized conditions. In these cases, a water quality criterion may be modified. The modification of the criterion does not change the designated use; the modification only changes the criterion for that specific waterbody. ~~Narrative criteria are required for many constituents because accurate data on background levels are lacking. More intensive water quality monitoring may identify surface waters of the state where existing quality is considerably better than the established criteria.~~ When justified by sufficient data and information, a numeric ~~the~~ water quality ~~criteria~~ criterion ~~will~~ may be adopted or modified in accordance with 20.6.4.10(F) and 20.6.4.10(G) NMAC, to protect the attainable uses of the waterbody.

134. The Commission finds that LANL's proposed revisions to 20.6.4.10(B) and (C) NMAC are well taken and supported by the weight of the evidence. The Commission hereby adopts such changes as reflected in the Proposed Final Rule submitted by LANL.

135. The Commission further finds that, as noted by LANL and SJWC, the mixture of language regarding higher water quality and uses is confusing. The Commission finds that the adopted changes provide greater clarity and consistency with 40 C.F.R. § 131.10 by focusing on the use of water.

136. When undertaking to identify existing uses, the Commission follows the EPA guidance cited by many of the parties to this triennial review as the "Smithee Letter". **NMED Ex. 62**; **LANL Ex. 32**. The Commission must have a high degree of confidence when identifying an existing use because once an existing use is designated, it cannot be removed. 40 C.F.R. § 131.10(h); **LANL Ex. 2** at 29 (Meyerhoff Direct); **LANL Ex. 32** at LANL-00571 (EPA "Smithee Letter"). Accordingly, the Commission finds that the process and the information that is compiled and considered to designate an existing use are critical.

137. Existing uses are those uses that are actually attained in the water body on or after November 28, 1975. 40 C.F.R. § 131.3(e); 20.6.4.7(E)(3) NMAC; **LANL Ex. 32** at LANL-00567, (EPA "Smithee Letter"); **LANL Ex. 58** at LANL-01086 (Meyerhoff Rebuttal); **LANL Ex. 67** at 9 (EPA Water Quality Standards Handbook). The Commission finds that an existing use evaluation should include both the use of the water (e.g., its purpose such as swimming) and the water quality necessary to support the use. Hrg. Tr., Vol. IV, 1071:17-24 (Dail); Hrg. Tr., Vol. IV, 1082:13-16 (Meyerhoff). As previously noted, before designation, the existence of and ability to conduct the actual use should be confirmed to ensure that there are not "physical problems, such as substrate or flow, that prevent the use from being attained." *See* **LANL Ex. 75** at 4 (EPA Water Quality standards Handbook, Chapter 4: Antidegradation); **LANL Ex. 58** at LANL-01109 (Meyerhoff Rebuttal).

138. Moreover, how the water quality is evaluated is important. For example, EPA 2012 guidance for water quality criteria to protect recreational uses includes evaluation of three components: magnitude, duration, and frequency. **LANL Ex. 58** at LANL-01096-01098 (Meyerhoff Rebuttal); **LANL Ex. 68** at 40 (EPA Recreational Water Quality Criteria); Hrg. Tr., Vol. IV, 1084:22-1085:2 (Meyerhoff). The Commission finds that the minimum requirements to make an assessment under the Comprehensive Assessment and Listing Methodology Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d)/§305(b) Integrated Report) ("NMED CALM Guidance") for purposes of the CWA § 305(b)/303(d) Integrated report should also be the minimum data threshold to document water quality for an existing use analysis. *See* **LANL Ex. 69** at 31 (NMED CALM Guidance); **LANL Ex. 58** at LANL-01098 (Meyerhoff Rebuttal).

139. As the EPA directs, the Commission further finds that existing uses should be described as accurately and completely as possible. **LANL Ex. 31** at 51,027 (80 Fed. Reg. 51,020); **LANL Ex. 32** at LANL-00569 (EPA "Smithee Letter"). Existing use determinations should be made on a site-specific basis and reflect the best available data and information. **LANL Ex. 33** at 2 (EPA Memo); **LANL Ex. 2** at 25-26 (Meyerhoff Direct). All available data should be considered. **LANL Ex. 32** at LANL-00574-75 (EPA "Smithee Letter"); **LANL Ex. 2** at 29-30 (Meyerhoff Direct). The quality of the data that is collected should be at least at the same level as the data quality required for a UAA. Hrg. Tr., Vol. IV, 1070:10-14 (Dail).

140. The Commission concurs with EPA in its 2015 revision to the water quality standards rule that having a clear process to establish existing uses will allow for better and more transparent communication among stakeholders, the public, NMED, the Commission, and EPA and provide for better decision-making. *See* **LANL Ex. 31** (80 Fed. Reg. 51,020). However, the

Commission finds that the process for making a finding that a designated use is an existing use, as well as the data requirements to support such determinations is not established by the Standards and is not clear in the NMED's WQMP/CPP or other procedural documents or guidance used by NMED in its implementation of the Standards. The Commission also finds that the process and evidentiary requirements to reclassify a water to assign a more protective designated use are unclear and insufficient for establishing designated uses. For example, NMED expressed disagreement that the Smithee letter (**NMED Ex. 62**; **LANL Ex. 32**) requires a process to determine existing uses (**NMED Ex. 109** at 72 (Fullam Rebuttal); *see* Hrg. Tr., Vol. IV, 1088:21-1089:4 (Meyerhoff)), stated that it has a process as outlined in the WQMP/CPP (**NMED Ex. 109** at 74 (Fullam Rebuttal); *see* Hrg. Tr., Vol. IV, 1089:6-11 (Meyerhoff)) and asserted that the flowchart in WQMP/CPP, Figure II-1 at II-8 (**LANL Ex. 70** (WQMP/CPP, Figure II-1) establishes that process. Yet, that illustrative flowchart incorrectly and illegally shows declassification of classified state waters based strictly upon hydrology protocol data without stakeholder or Commission involvement. Hrg. Tr., Vol. IV, 1148:1-4 (Meyerhoff) (testifying that the flow chart in the WQMP/CPP "just shows a process" but that "if there's a proposal to change 20.6.4 NMAC, it goes before the Commission."). The Commission therefore finds that NMED did not provide a consistent technical basis or testimony on the process for determining whether a designated use is in fact an existing use.

141. The Commission finds that the Standards currently only include a process for changing designated uses in 20.6.4.15 NMAC which addresses the UAA process. The Commission finds, based upon the testimony of SJWC and LANL that a process for determining existing uses and to reclassify a water to assign a more protective designated use should be adopted and included in the Standards for clarity, transparency, and to ensure proper decision-making. The

Commission has considered the three alternative approaches described by LANL: (i) a process similar to the UAA process; (ii) a process similar to the 2015 Joint Stipulated Agreement process; and (iii) the Five-Step process outlined by LANL witnesses Dr. Meyerhoff and Mr. Gallegos. *See* **LANL Ex. 58** at LANL-01099-LANL-01101 (Meyerhoff Rebuttal); **LANL Ex. 59** at 7-21 (Gallegos Rebuttal); Hrg. Tr., Vol. IV, 1103:5-1106:25 (Gallegos); Hrg. Tr., Vol. IV, 1086:20-1087:24 (Meyerhoff). The Commission finds that under 40 C.F.R. § 131.10(k) a UAA is not required to determine an existing use or assign a more protective designated use and declines to apply a UAA process requirement in these circumstances. The Commission finds that while the 2015 Joint Stipulated Agreement process could be successful with a small group of stakeholders, it may not be appropriate statewide, and declines to adopt that approach as a process model.

142. The Commission concurs with LANL's proposed amendment to 20.6.4.10(B) NMAC and the direct testimony of the SJWC at **SJWC Ex. 2** at 13-14 (DeRose-Bamman Direct) and directs that NMED develop a formal EUA process for the Commission's adoption. At a minimum, the Commission finds that the following five steps should be included in that process:

- Step One—develop a Work Plan. Whether the EUA is proposed by NMED or another party, a Work Plan is required to clearly define what needs to be done and to engage other stakeholders.
- Step Two—implement the existing use investigation by compiling existing data, as required by the Work Plan, and collecting additional data, where necessary, to fill critical data gaps. This step shall include collection of (a) water quality data to assess attainment of the relevant water quality criteria (e.g., *E. coli* and pH criteria as they pertain to recreational uses); and (b) data regarding actual attainment of the use of the water (e.g., flow/depth data) to evaluate whether activities consistent with the proposed use, such as swimming for a primary contact use, are possible such that there is considerable risk of ingesting water in quantities sufficient to pose a significant health hazard.
- Step Three—conduct the existing use analysis (i.e., determine if a higher attainable use is applicable to the waterbody). When evaluating water quality data, the thresholds for evaluating use attainment should be consistent with the State's approved CALM procedures for assessing use attainment for the purposes of preparing the biannual CWA §303(d)/§305(b) Integrated Report to EPA.

- Step Four—prepare and submit a petition to the Commission to modify the designated use or uses for the studied waters, if warranted by the analysis; and
- Step Five—if the EUA is approved by the Commission, the revised water quality standards and all supporting evidence would be submitted to the EPA Regional Administrator for review and approval. If the Commission rejects the EUA petition, then the proponents would need to determine whether to revise the petition for submittal again at a later date.

See **LANL Ex. 2** at 33-34 (Meyerhoff Direct); **LANL Ex. 58** at LANL-01099-01101 (Meyerhoff Rebuttal); **SJWC Ex. 2** at 13-14 (DeRose-Bamman Direct); Hrg. Tr., Vol. IV, 1086:20-1087:24, 1090:6-1092:8 (Meyerhoff). The process should make it clear that any use designation or use designation revision is a Commission decision. Hrg. Tr., Vol. IV, 1102:4-10 (Gallegos).

143. Lastly, regarding 20.6.4.10(C) NMAC, the Commission finds that the amended provision is significantly more than a "clarification" and would substantively change the Commission's authority in a way that is not required but the CWA or EPA regulations. Sections 20.6.4.10(F) and (G) NMAC, which were not proposed for amendment, establish conditions and procedures for the Commission's adoption of site-specific numeric criteria. We find that the portion of proposed new second sentence of 20.6.4.10(C) NMAC stating that water quality criterion may be modified to reflect the natural conditions of a specific waterbody is not necessary and creates confusion as another condition that is already encompassed within 20.6.4.10(F) and (G) NMAC. Accordingly, the Commission will adopt proposed 20.6.4.10(C) NMAC with the second sentence modified as proposed in LANL's Proposed Final Rule.

B. 20.6.4.10(B) and 20.6.5.15(A) NMAC – Use of "Stringency" (Fulton)

144. NMED proposes to add a new subsection to 20.6.4.10(B) NMAC to "clarify the required process for amending a designated use where existing use is more stringent than the designated use in accordance with 40 C.F.R. 131.10(i)" and amend language in 20.6.4.10(C) NMAC "describing how a designated use of numeric criterion can be amended to be less

stringent." NMED Orig. Petition, filed August 19, 2020, Statement of Reasons ¶¶ 8, 9; **NMED Ex. 9** (NMED's Proposed Amended Rule). NMED also proposed to add a language to the UAA Section, 20.6.5.15(A) NMAC, to "provide clarity on the application of each subsection." NMED Orig. Petition, filed August 19, 2020, Statement of Reasons ¶¶ 16 (NMED's Proposed Amended Rule).

145. LANL and SWJC objected to NMED's improper use of the term "stringent" to apply to designated use. *See e.g.*, NMED's Original Petition, filed August 18, 2020 (proposing to add to 20.6.4.15(A) "*the amendment of a designated use, based on a more stringent existing use, does not require a use attainability analysis;*"). Mr. Fulton recommended, consistent with federal regulations (40 C.F.R. § 131.10) that NMED's proposed amendments to Subsections 10(B) and 15(A) and 15(D)(2)(c) be revised to limit use of the term "stringent" to "refer to the magnitude of numeric criteria rather than sub-categories of designated uses." **LANL Ex. 62** at 10 (Fulton Rebuttal); **SWJC Ex. 2** at 15 (DeRose-Bamman Direct) ("[T]he use of the term 'stringent' in this proposed new language is improper. Within 40 C.F.R. 131.10, 'stringent' applies to criteria not uses").

146. Mr. Fulton also testified that using the language "is higher quality" in NMED's proposed amendments to 20.6.4.10(B) NMAC in reference to an existing use (or designated use) may create confusion because "sub-categories of aquatic life are not necessarily of 'higher' or "lesser" quality relative to one another. He further explained that uses may require different numeric criteria for some parameters (i.e., temperature) but require the same numeric criteria for other parameters (i.e., use-specific criterion set forth in 20.6.4.900(J)(1) NMAC).

147. Mr. Fulton therefore recommended that 20.6.4.10(B) NMAC be modified as follows, consistent with LANL's Proposed Final Rule:

B. In accordance with 40 CFR 131.10, when an existing use of a water, as defined under 20.6.4.7 NMAC, requires a higher level of protection than the current designated use and new supporting evidence demonstrates the presence of that use, the designated use shall be amended accordingly to protect the existing use. This action can only be taken after the commission has established formal procedures, through the water quality management plan continuing planning process, to amend a designated use that is found to be less restrictive than an existing use. The process described in this section may not be used where the commission has already made a determination concerning the existing use of classified waters of the state.

148. No party objected to LANL's proposed recommendations to 20.6.4.10(B), 20.6.4.15(A), and 20.6.4.7(A)(8) NMAC regarding NMED's use of the term "stringent".

149. The Commission finds that LANL's proposed changes to 20.6.4.10(B) and 20.6.4.15(A) NMAC are well taken and supported by the weight of the evidence and the underlying policy reasons. The Commission hereby adopts LANL's recommendations.

C. 20.6.4.15 NMAC – Clarifying the UAA process

150. NMED proposed numerous changes and new subsections to 20.6.4.15 NMAC including identifying the Hydrology Protocol as an acceptable methodology for identifying perennial waters, adding subsections to describe the process for determining the highest attainable use and for removing and replacing a designated use, and distinguishing the UAA processes when conducted by NMED or by an entity other than NMED. LANL and SJWC provided a number of comments, particularly to sections A and D. NMMA commented regarding section E that UAA procedures should be the same regardless of who conducts the analysis. In its final proposal, NMED proposes to move the UAA definition to 20.6.4.7(U)(2) NMAC with all other definitions, change section headings to better reflect the content of each section, retain new section C, and detail the UAA processes retaining a distinction between a Department-conducted UAA and one conducted by another entity. LANL proposed additional amendments to section A, supported the majority of NMED's proposed revisions to sections B through D, and recommended inclusions of

a review timeline in E. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC). LANL's proposed amendments to 20.6.4.15(A) and (D) NMAC are shown below and presented in LANL's Proposed Final Rule:

> **20.6.4.15 USE ATTAINABILITY ANALYSIS:**
>
> **A.** Regulatory Requirements for a use attainability analysis. ~~A use attainability analysis is a scientific study conducted for the purpose of assessing the factors affecting the attainment of a use. Whenever a use attainability analysis is conducted, it shall be subject to the requirements and limitations set forth in 40 CFR Part 131, Water Quality Standards; specifically, Subsections 131.3(g), 131.10(g), 131.10(h) and 131.10(j) shall be applicable.~~ In accordance with 40 CFR 131.10, and 20.6.4.10 NMAC, the amendment of a designated use to a different use that requires more stringent water quality criteria may be supported by a use attainability analysis, but, does not necessarily require a use attainability analysis. A use attainability analysis must be conducted when designated uses do not include uses specified in Section 101(a)(2) of the federal Clean Water Act or when designating sub-categories of these uses require less restrictive criteria than previously applicable. When removing designated uses that are not Section 101(a)(2) uses, a use attainability analysis is not required.
>
> **D. Use attainability analysis conducted by an entity other than the department.** Any person may submit notice to the department stating the intent to conduct a use attainability analysis.
> **(1)** The proponent shall provide such notice along with ~~develop~~ a work plan supporting ~~to conduct~~ the development of a use attainability analysis ~~and shall submit the work plan~~ to the department and region 6 EPA for review and comment. The department will review and approve work plans, or provide written basis for non-approval, within thirty days of submittal or, in the case of a previously non-approved work plan, re-submittal by a proponent.

151. The Commission finds that LANL's proposed revisions to 20.6.4.15(A) NMAC are well taken and supported by the weight of the evidence. The Commission hereby adopts such changes as reflected in the Proposed Final Rule submitted by LANL. The Commission finds that LANL's proposal, including specifically the proposed last two sentences, would include all foundational requirements related to use attainability analyses in section A, providing greater clarity and support for the remaining sections of 20.6.4.15 NMAC.

152. The Commission finds that LANL's proposed inclusion of "necessarily" comports more closely with EPA's language in 40 C.F.R. § 131.10(a) which states that when adopting new or revised designated uses other than the uses specified in CWA section 101(a)(2), or removing designated uses "a use attainability analysis may be used to satisfy th[e] requirement" (emphasis added) for documentation supporting the State's action.

153. Lastly, the Commission finds that it is appropriate to have different processes for a UAA conducted by NMED versus one conducted by another entity. However, without a work plan review timeline for a non-Department UAA, NMED could effectively veto the UAA process by inaction. The Commission finds that LANL's proposal of 30 days may not provide sufficient time to review a detailed, site-specific UAA. The Commission will, instead, require review and approval or a written basis for non-approval of a UAA work plan within 60 days.

154. The Commission approves and adopts the remainder of NMED's proposed revisions to 20.6.4.15 NMAC.

VI. SPECIFIC CRITERIA

A. 20.6.4.900(I), J(1) and J(2) NMAC – Aluminum

155. NMED proposed several changes to 20.6.4.900 NMAC related to hardness- based aluminum criteria. In 20.6.4.900(I)(1) and 20.6.4.900(I)(2) NMAC, NMED proposes to "add language clarifying the pH range to which the acute and chronic aquatic life hardness-based criteria apply for aluminum;" "remove language regarding EPA's disapproval of hardness-based equations for total recoverable aluminum in waters where the pH is less than 6.5; and "re-establish dissolved aluminum criteria for waters outside the acceptable pH range for the hardness-based total recoverable aluminum criteria." NMED Orig. Petition, filed August 19, 2020, Statement of Reasons ¶¶ 30-31; **NMED Ex. 4** at 21-22 (Fullam Direct). In 20.6.4.900(J)(1) NMAC, NMED is

proposing to "re-establish the acute and chronic aquatic life criteria for dissolved aluminum." NMED Orig. Petition, filed August 19, 2020, Statement of Reasons ¶¶ 34, 38; **NMED Ex. 4** at 21-22 (Fullam Direct). NMED is also proposing to add a footnote to 20.6.4.900(J)(2)(i) NMAC to "explain that the numeric acute and chronic dissolved aluminum criteria are only applicable for waters with a pH outside the 6.5 to 9.0 SU range. All water within the range are subject to the hardness-based acute and chronic aluminum criteria." **NMED Ex. 4** at 21 (Fullam Direct).

156. In its Amended Petition, NMED added language to 20.6.4.900(I) to "include 9.0 instead of 9 as the pH range for hardness-based aluminum criteria" NMED Amended Petition, filed March 12, 2021, ¶ 34. NMED also amended language in 20.6.4.900(J)(2)(i) NMAC to "clarify when dissolved aluminum criteria are applicable." *See* NMED Amended Petition. Filed March 12, 2021, ¶ 45; **NMED Ex. 9** (NMED's Proposed Amended Rule); **NMED Ex. 110** (NMED's Revised Proposed Amended Rule).

157. NMED's Statement of Reasons for the proposed change to apply the EPA (1988) acute and chronic aquatic life criteria ("1988 Criteria") of 750 and 87 µg/L for dissolved Al when the concurrent pH is outside that range provided in 20.6.4.900(I) NMAC state: "Hardness-based total aluminum research was conducted within a specific pH range, therefore hardness-based total recoverable aluminum criteria are proven to be protective within a certain pH range. Dissolved aluminum criteria are being re-established for waters outside the acceptable pH range until there is evidence to support their removal or replacement." NMED Orig. Petition, filed August 19, 2020, Statement of Reasons ¶ 34; *see also* **NMED Ex. 4** at 19 (Fullam Direct) (chronicling the history of language in the standards regarding EPA's disapproval of hardness based criteria for total aluminum criteria). Ms. Fullam testified that NMED's proposal to apply the 1988 Criteria

serves to "remediate the lack of applicable criteria for aluminum in waters with a pH less than 6.5 and above 9.0." **NMED Ex. 4** at 21 (Fullam Direct).

158. NMED recognizes that the 1988 Criteria provided applicability within the specified pH range of 6.5-9.0 SU. **NMED Ex. 109** at 79 (Fullam Rebuttal). NMED nevertheless argues that the 1988 Criteria "are appropriate until new, defensible acute and chronic aluminum criteria are developed for waters with exceptionally low or high pH." **NMED Ex. 109** at 80 (Fullam Rebuttal).

159. NMED also recognizes that EPA has published updated acute and chronic aquatic life criteria for aluminum (the "2018 Criteria") as a replacement of the current hardness-based water quality standard.

160. NMED witness Mr. Barrios provided the following explanation of the 2018 Criteria:

> [The criteria is] based on a multiple linear regression ("MLR") model that takes into account the effects of ambient water quality on the bioavailability of aluminum to freshwater aquatic life. The MLR is based on the observed interactions of aluminum, pH, hardness, and dissolved organic carbon in a compilation of toxicity tests consisting of *P. promelas* and *C. dubia*. The EPA found these three parameters have the most significant influence on the toxicity of aluminum. Development of the MLR model included a range of water quality conditions to capture the variability of ambient conditions: pH (6.0-8.7), hardness (9.8 to 428 mg/L), and DOC (0.08 to 12.3 mg/L).

NMED Ex. 2 at 10 (Barrios Direct); **NMED Ex. 42** (EPA's WQC ALU Aluminum Guidance).

161. Mr. Barrios acknowledged that the "aluminum MLR model represents the best available science for calculating appropriate aluminum instantaneous water quality criteria ("IWQC") for freshwater aquatic life" but testified that NMED "cannot implement the MLR model effectively since the Department does not have a way to determine the MLR model input value of DOC with confidence" because the state lab "does not currently perform DOC analysis" and is

limited by resources from using a contract lab. **NMED Ex. 2** at 11 (Barrios Direct). Mr. Barrios testified that implementation of the 2018 Criteria is further complicated because "the guidance does not address the distinction between the bioavailable species of aluminum and those forms that are geologically based and present in natural waters as suspended sediment."

162. LANL opposes these amendments on the basis that NMED's position is not technically supported, "does not reflect the state-of -the-science on aluminum bioavailability and toxicity" and is inconsistent with the 2018 Criteria. *See e.g.*, **LANL Ex. 64** at 5 (DeForest Rebuttal) (explaining that credible science does not support applying the 1988 Criteria to apply to waters outside the pH range of 6.5 to 9.0, the range within which all toxicity tests used to support development of the 1988 Criteria were conducted "unless one accounts for 3 water quality parameters – hardness, pH and DOC – in calculating numerical water quality criteria."); ***Id.*** at 7; Hrg. Tr., Vol. III, 693:1-16 (DeForest).

163. The Commission finds that NMED's proposal to make the 1988 aluminum criteria applicable outside the pH range of 6.5 to 9.0 is not based on credible scientific data and should be rejected. The Commission accepts NMED's evidence that establishing lack of necessary resources to adopt the 2018 Criteria at this time. However, the Commission concludes that the prudent action to protect public health and welfare and enhance quality of water and serve the purposes of the federal Clean Water Act is to move toward adoption of the 2018 Criteria.

B. 20.6.4.900(I)(1)-(2) NMAC – 304(a) Copper adoption

164. While copper is calculated for both acute and aquatic life criteria, NMED witness Barrios explained that NMED is not proposing to adopt EPA's recommended aquatic life criteria for copper as a replacement of the current hardness-based water quality standard. **NMED Ex. 2** at 14 (Barrios Direct); Hrg. Tr., Vol. IV at 1239:8-1240:4 (Barrios).

165. NMED explained that, in 2007, EPA introduced a revised AWQC for copper using the Biotic Ligand Model ("BLM") to account for various effects of ambient water quality on the toxicity of copper. **NMED Ex. 2** at 14 (Barrios Direct). While the BLM more accurately assesses copper bioavailability than New Mexico's hardness-based criteria calculation, it requires the input of 11 coincident water quality parameters, some of which are not commonly available. As EPA recognizes data scarcity is a limitation of the BLM, EPA recommends adopting the BLM for copper on a targeted basis and retaining hardness-based standards for all other waters. ***Id.*** at 14. LANL, nevertheless, has been developing data to support implementation of EPA's 2007, Section 304(a) recommended aquatic life criteria for copper for the Pajarito Plateau. **LANL Ex. 63** at 3-4 (Toll Rebuttal). A subsequent petition to adopt EPA's Section 304(a) recommended aquatic life criteria as site-specific water quality criteria for the Pajarito Plateau region will be forthcoming. ***Id***. at 4-5.

166. LANL supports NMED's proposal to not adopt EPA's 2007 recommended aquatic life criteria for copper. *See* **LANL Ex. 63** at 3 (Toll Rebuttal); *see also* Hrg. Tr., Vol. IV at 1261:18-1263:2 (Toll). LANL witness Dr. Toll explained that, since 2005, LANL and NMED have worked in conjunction to collect data and gather samples to develop site-specific copper criteria using the EPA 2007 recommended water quality criteria method. Hrg. Tr., Vol. IV at 1262:6-12 (Toll). Toll also testified that a demonstration report is imminent. *Id.* at 1262:17-18.

167. The Commission finds that NMED's position to delay adoption of EPA's 2007 recommended aquatic life criteria for copper is well-taken and supported by the weight of the evidence, and the Commission concurs with NMED's position.

C. 20.6.4.900(J)(1) NMAC – 304(a) criteria (Fulton, Dail).

168. NMED's withdrawal of the proposal to adopt the arsenic HH-OO criteria and the additional information provided in **NMED Ex. 48** on the derivation of New Mexico's current arsenic HH-OO criteria addresses the concerns raised by LANL in Direct Testimony. Hrg. Tr., Vol. III, 1019:8-13 (Fulton).

VII. LANL WATERS

A. 20.6.4.126 NMAC – RIO GRANDE BASIN (Perennial waters within lands managed by LANL)

169. NMED originally proposed to amend section 20.6.4.126 NMAC ("Section 126") to identify certain additional stream segments within lands managed by DOE within LANL. See NMED Orig. Petition, filed August 19, 2020. NMED withdrew this proposal in its Amended Petition. *See* NMED Amended Petition, filed March 12, 2021; **NMED Ex. 110** (NMED's Revised Proposed amended Rule). LANL supported the identification of certain additional stream segments under Section 126, consistent with NMED's original proposal. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC). LANL's proposed amendments to Section 126 are shown below and presented in LANL's Proposed Final Rule:

> **20.6.4.126 RIO GRANDE BASIN -** Perennial waters within lands managed by the U.S. Department of Energy (DOE) within Los Alamos National Laboratory (LANL), including but not limited to: ~~portions of~~ Canon de Valle from ~~Los Alamos national laboratory~~ (LANL) stream gage E256 upstream to Burning Ground spring, Sandia canyon from Sigma canyon upstream to LANL NPDES outfall 001, Pajarito canyon from 0.5 miles below Arroyo de La Delfe upstream to Homestead Spring, Arroyo de La Delfe from Pajarito canyon to Kieling Spring, ~~into~~ Starmers gulch and Starmers spring and Water canyon from Area-A canyon upstream to State Route 501.
>
> **A. Designated Uses:** coldwater aquatic life, livestock watering, wildlife habitat and secondary contact.
>
> **B. Criteria:** the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

170. The Commission finds that LANL's proposed revisions to Section 126 are well taken and supported by the weight of the evidence. The Commission hereby adopts such changes as reflected in the Proposed Final Rule submitted by LANL.

171. The Commission classified all waters within the lands managed by DOE within LANL during the 2003 Triennial Review. *See* **LANL Ex. 16** (Statement of Reasons for Amendment of Standards, dated May 13, 2005); **LANL Ex. 2** at 8-17 (Meyerhoff Direct); **LANL Ex. 30** at 5 (Affidavit of M. Saladen); Hrg. Tr., Vol. IV, 1326:19-1329:10 (Meyerhoff). Specifically, the Commission classified specific waters within LANL with perennial flow characteristics under Section 126, and classified all remaining water waters within LANL with ephemeral and intermittent flow characteristics under Section 128. **LANL Ex. 2** (Meyerhoff Direct); **LANL Ex. 3** at 10-13 (Gallegos Direct); **LANL Ex. 23** (excerpt of Fisher Direct Testimony, Triennial Review Public Hearing (October 31, 2003)); **LANL Ex. 30** at 6 (Affidavit of M. Saladen); Hrg. Tr., Vol. IV, 1326:19-1329:10 (Meyerhoff) ("[T]he intent was that all waters on LANL property were being classified under [Sections 126 and 128]").

172. In 2007, NMED prepared a UAA supporting the applicability of a secondary contact designated use for Sections 126 and 128 and a limited aquatic life use for Section 128. *See* **LANL Ex. 18** (NMED 2007 UAA). Following receipt of the 2007 UAA, EPA approved the Commission's classification of all surface waters within LANL under Sections 126 and 128. *See* **LANL Ex. 3** at 14 (Gallegos Direct); **LANL Ex. 19** (2007 EPA Letter); **LANL Ex. 26** (Excerpt of EPA Record of Decision on the 2009 Triennial Review reaffirming approval of the 2007 UAA); *see also* **LANL Ex. 18**, Attachment 2 (NMED Map in 2007 UAA reflecting that all LANL waters classified under either Section 126 or 128). LANL provided evidence that at that time it was well

understood that all surface waters within the boundary of LANL were classified by the Commission.

173. The Commission has not amended its prior classification of LANL waters under Section 126 and Section 128 since the completion of the 2003 Triennial Review, including during the 2009 and 2013 Triennial Reviews. **LANL Ex. 2** at 18-19 (Meyerhoff Direct); **LANL Ex. 3** at 14 (Gallegos Direct); **LANL Ex. 30** at ¶ 14 (Affidavit of M. Saladen).

174. In this Triennial Review, LANL proposed to add language to Section 126 to clarify that all "[p]erennial waters within lands managed by the U.S. Department of Energy (DOE) within Los Alamos National Laboratory (LANL)," are classified under Section 126, "including but not limited to," the stream segments that are specifically identified within the section. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); *see also* Hrg. Tr., Vol. IV, 1335:11-16, 1351:12-1351:24 (Gallegos) (testifying that LANL's proposed revisions will "provide greater flexibility" for the Commission and prevent future disputes as to whether perennial waters identified within LANL are encompassed by Section 126). The Commission finds that LANL's proposed clarification is appropriate, will add clarity, and is consistent with the Commission's prior adoption of Section 126 during the 2003 Triennial Review.

175. During the 2013 Triennial Review, Amigos Bravos, DOE, Los Alamos National Security LLC and NMED entered into the October 9, 2015 Joint Stipulation Regarding Proposed Changes to 20.6.4.128 NMAC ("2015 Joint Stipulation"). *See* **LANL Ex. 29** (2015 Joint Stipulation). The 2015 Joint Stipulation required that the parties meet, share available data, and confer regarding the appropriate level of water quality protections for ephemeral and intermittent waters classified under 20.6.4.128 NMAC. **LANL Ex. 2** at 19-20 (Meyerhoff Direct); **LANL Ex. 30** at 8 (Affidavit of M. Saladen).

176. Based on the data collected pursuant to the 2015 Joint Stipulation, LANL has proposed to classify the following two segments under Section 126: (1) Pajarito canyon from 0.5 miles below Arroyo de la Delfe upstream to Homestead Spring; and (2) Arroyo de la Delfe from Pajarito canyon to Kieling Spring. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC); *see also* **LANL Ex. 3** at 19 (Gallegos Direct). As described in LANL's proposal, the first segment – Pajarito canyon from 0.5 miles below Arroyo de la Delfe upstream to Homestead Spring – includes the existing Section 126 perennial water in Pajarito canyon from the confluence with Arroyo de la Delfe to Starmers gulch and the following two contiguous reaches: (i) Pajarito canyon from 0.5 miles below Arroyo de la Delfe to the confluence with Arroyo de la Delfe ("Pajarito Upper Section"); and (ii) Pajarito canyon from Starmers Gulch to Homestead Spring ("Pajarito Lower Section"). *See* **LANL Ex. 3** at 19-20 (Gallegos Direct).

177. LANL presented substantial, credible data and information to support the reclassification of the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring, from Section 128 to Section 126. **LANL Ex. 3** at 17-26 (Gallegos Direct); **LANL Ex. 4** at 8-26 (Goering Direct); Hrg. Tr., Vol. IV, 1341:14-1342:2 (Gallegos); **LANL Ex. 37** (Map of HP Assessment Sites and Proposed Changes); **LANL Ex. 38** (Data Compilation: Pajarito Canyon); **LANL Ex. 39** (Data Compilation: Arroyo de la Delfe Canyon). The data presented by LANL includes Hydrology Protocol Level 1 and Level 2 assessments, stream gage data, benthic data, field observations and photographs, and temperature, pH, and dissolved oxygen data. **LANL Ex. 3** at 17-26 (Gallegos Direct); **LANL Ex. 4** at 8-26 (Goering Direct); **LANL Exs. 38-43** (Data Compilations of Related Canyons). Based on these data, LANL's witnesses, Mr. Gallegos and Mr. Goering, testified that a strong technical basis exists to support reclassification of the Pajarito Upper Section, Pajarito Lower Section, and Arroyo

de la Delfe from Pajarito canyon to Kieling Spring to Section 126. Hrg. Tr., Vol. IV, 1357:19-1359:4 (Goering); **LANL Ex. 3** at 17-21 (Gallegos Direct); **LANL Ex. 4** at 17-21 (Goering Direct).

178. The Commission finds that the testimony and conclusions of LANL's witnesses, Mr. Gallegos and Mr. Goering, are credible and that the weight of evidence supports LANL's proposed reclassification of the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring under Section 126. The Commission further finds that the purpose of the 2015 Joint Stipulation was to identify the appropriate level of water quality protections for Section 128 waters and to increase that protection where the data demonstrated that increased protection was appropriate. LANL's proposed reclassification of the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring, under Section 126, best accomplishes those purposes of the 2015 Joint Stipulation and of the Clean Water Act's triennial review procedures set forth in 40 C.F.R. § 131.20.

179. The Commission rejects NMED's assertion that Hydrology Protocol assessments conducted without the presence of NMED staff should not be considered in determining whether to reclassify waters under Section 126. LANL's witnesses, Mr. Gallegos, testified under oath that "[a]ll HP assessments were conducted following the same approved procedures whether NMED staff participated or not." **LANL Ex. 3** at 5 (Gallegos Direct). Accordingly, the Commission finds that the data and information collected by LANL pursuant to the 2015 Joint Stipulation and in accordance with NMED's procedures outlined in the Hydrology Protocol are credible and reliable, regardless of whether NMED staff were personally involved in the collection of that data and information. This Commission also notes that the data collected by LANL is publicly available.

180. Although NMED has made no specific proposal to do so in its Petition, the Commission rejects NMED's contention that the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring have been or should be classified under 20.6.4.99 NMAC ("Section 99"). Section 99 includes perennial waters of the State that have not been previously classified under 20.6.4.101-899 NMAC. *See* 20.6.4.99 NMAC. The Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring are not unclassified waters of the State. These segments were classified by the Commission under Section 128 during the 2003 Triennial Review, and the Commission has made no decision to declassify those waters since that time. The Commission finds that the segments included in Section 128 remain indisputably intermittent or ephemeral when viewed as a whole. The Commission rejects the implication of NMED's contention that classified waters may be unclassified automatically or by a decision of NMED without a Commission decision. Only the Commission has the authority to modify the state's water quality standards. NMSA 1978, § 74-6-3(E); *see* 20.6.4.7(C)(3) NMAC.

181. The Commission further rejects NMED's position that an illustrative flowchart in the WQMP/CPP requires the automatic declassification of previously classified waters of the State. The illustrative flowchart on its face states that it merely depicts "the *primary pathways* to determining or amending the applicable water quality standards based upon . . . Hydrology Protocol results." **LANL Ex. 70** at II-8 **(**WQMP/CPP, Figure II-1); Hrg. Tr., Vol. IV, 1143:5-12 (Meyerhoff) (emphasis added). The flow chart does not confer NMED with any authority to declassify previously classified waters without the Commission's consideration. *See* Hrg. Tr., Vol. IV, 1148:1-4 (Meyerhoff) (testifying that the flow chart in the WQMP/CPP "just shows a process" but that "if there's a proposal to change 20.6.4 NMAC, it goes before the Commission."). The

Commission further finds that the flow chart does not prevent the Commission from adopting LANL's proposal to reclassify those portions of Section 128 waters discovered to be perennial under Section 126—the section the Commission already adopted for perennial waters within LANL.

182. The Commission finds that the most reasonable and logical approach is the approach proposed by LANL to move the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring from Section 128 to Section 126. These segments are contiguous with existing perennial waters within LANL that are already classified under Section 126. The Commission agrees with LANL that this fact weighs heavily in favor of classifying the segments under Section 126. Hrg. Tr., Vol. IV, 1330:10-1331:5 (Meyerhoff) (explaining that the fact that these segments are contiguous to existing Section 126 waters "makes even more sense why you would just simply join them, effectively, and put them with 126. With regards to the uses . . . there's no expectation that something that's contiguous, and so by that we mean the flows are connected, would be any different."). Where new data collected and considered pursuant to the 2015 Joint Stipulation demonstrates that portions of Section 128 waters have perennial characteristics, the Commission agrees with LANL that those newly discovered perennial portions should be reclassified under the section that the Commission has already adopted for perennial waters within LANL: Section 126.[6] The more protective aquatic life use for these perennial waters under Section 126 is warranted.

183. Classification of the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring under Section 126 is also consistent with the

[6] LANL's proposal is also consistent with NMED's original proposal in this proceeding. *See* NMED Orig. Petition, filed August 19, 2020.

designated uses under Section 126, which include secondary contact. *See* 20.6.4.126 NMAC. NMED's 2007 UAA concluded that all waters classified in Section 128 following the 2003 Triennial Review – including the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring – have an existing and attainable designated use of secondary contact. *See* **LANL Ex. 18** (NMED UAA, 2007). LANL's witness, Dr. Richard Meyerhoff, also testified that secondary contact remains the appropriate recreational use for the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring, because the shallow nature of those segments precludes primary recreational contact. *See* Hrg. Tr., Vol. IV, 1086:11-15 (Meyerhoff) ("[B]ased on all the evidence that I've reviewed as part of this Triennial Review proceedings, it is clear [that] secondary contact remains the appropriate designated use for waters on LANL property."). In addition, NMED has provided no basis to believe that the water quality for the Pajarito Upper Section, Pajarito Lower Section, and Arroyo de la Delfe from Pajarito canyon to Kieling Spring differs from the water quality for the segments of the same canyon that have already been classified under Section 126.

184. The Commission further directs NMED to develop a proposed amendment to the illustrative flowchart in the WQMP/CPP consistent with **LANL Ex. 78** (LANL's Recommendations to Flow Chart) to clarify the purpose and effect of the flowchart and ensure that it avoids automatic declassification of any classified State waters and includes a Commission decision-making role for every designated use change. The Commission will consider that amended flowchart in a future amendment to the WQMP/CPP.

B. 20.6.4.128 NMAC – RIO GRAND BASIN (Ephemeral and intermittent waters within lands managed by LANL)

185. In its Amended Petition, NMED proposed to amend Section 128 by replacing the word "watercourses" with "waters," and by adding language to clarify that Section 128 includes

any ephemeral and intermittent portions of waters located within LANL "not specifically identified in 20.6.4.126 or 20.6.4.140 NMAC." *See* NMED Amended Petition, filed March 12, 2021; **NMED Ex. 110** (NMED's Revised Proposed Amended Rule). LANL generally supported NMED's proposed amendment to Section 128, but LANL further recommended that the word "specifically" be deleted from the language in Section 128 to be consistent with LANL's proposed language for Section 126. *See* **LANL Ex. 57** (Proposed Changes to 20.4.6 NMAC). LANL's proposed amendments to Section 128 are shown below and presented in LANL's Proposed Final Rule:

> **20.6.4.128 RIO GRANDE BASIN -** Ephemeral and intermittent portions of ~~watercourses~~ waters within lands managed by U.S. ~~department~~Department of ~~energy~~Energy (DOE) within LANL, including but not limited to: Mortandad canyon, Canada del Buey, Ancho canyon, Chaquehui canyon, Indio canyon, Fence canyon, Potrillo canyon and portions of Canon de Valle, Los Alamos canyon, Sandia canyon, Pajarito canyon and Water canyon not ~~specifically~~ identified in 20.6.4.126 NMAC or 20.6.4.140 NMAC. (Surface waters within lands scheduled for transfer from DOE to tribal, state or local authorities are specifically excluded.)
>
> **A. Designated Uses:** livestock watering, wildlife habitat, limited aquatic life and secondary contact.
>
> **B. Criteria:** the use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: the acute total ammonia criteria set forth in Subsection K of 20.6.4.900 NMAC (salmonids absent).

186. The Commission finds that LANL's proposed language for Section 128 is well taken and supported by the weight of the evidence. The Commission hereby adopts such changes as reflected in the Proposed Final Rule submitted by LANL.

187. LANL's proposed language for Section 126, which the Commission adopts, as discussed above, clarifies that all perennial waters located within LANL are classified under Section 126. *See* **LANL Ex. 57** (Proposed Changes to 20.6.4 NMAC). Accordingly, the use of the term "specifically" within Section 128 is no longer appropriate.

188. The Commission also finds that NMED's proposal to delete the word "watercourses" in Section 128 and replacing it with the word "waters" will add clarity to the section.

C. 20.6.4.140 NMAC – RIO GRAND BASIN (Specified Intermittent Waters Within LANL)

189. NMED proposed to create a new classified standards section, 20.6.4.140 NMAC ("Section 140") and to reclassify the following intermittent waters within LANL under the new Section 140: Effluent Canyon from Mortandad Canyon to its headwaters, Site Canyon from alluvial monitoring well MSC 16-06293 to Martin Spring, and Twomile Canyon from its confluence with Pajarito Canyon to Upper Twomile Canyon. *See* NMED Amended Petition, filed March 12, 2021; **NMED Ex. 110** (NMED's Revised Proposed Amended Rule). All three of these reaches are currently classified waters under Section 128.

190. NMED proposed the following designated uses for the proposed new Section 140: livestock watering, wildlife habitat, marginal warmwater aquatic life, and secondary contact. *See* **NMED Ex. 4** at 46:11-12 (Fullam Direct). NMED also prepared an Existing Use Analysis for Effluent Canyon, Upper S-Site Canyon and Two-Mile Canyon from Water Canyon upstream to its confluence with Upper Two-Mile Canyon to support its proposed reclassification. *See* **NMED Ex. 73** (NMED's Designated Use Analysis), corrected and refiled as **NMED Ex. 124** (NMED's Corrected Designated Use Analysis) (collectively referred to as "LANL EUA").

191. LANL generally supported NMED's proposed reclassification under new Section 140, but with two modifications. First, while LANL agreed that the data support a marginal warmwater aquatic life use for intermittent portions of S-Site canyon from monitoring well MSC 16-06293 to Martin Spring and intermittent portions of Twomile canyon from its confluence with Pajarito canyon to upper Twomile canyon, LANL's witnesses testified that their evaluation of

additional data in the context of considering NMED's direct testimony raised "questions about the water quality in Effluent canyon from Mortandad canyon to its headwaters," indicating that the canyon may not be capable of supporting a warmwater aquatic life use designation; and therefore, LANL recommended that the Commission not reclassify Effluent Canyon within Section 140 until such time as new data can be collected and analyzed. *See* **LANL Ex. 59** at 24 (Gallegos Rebuttal). Second, LANL proposed that the portion of Twomile Canyon to be included in new Section 140 should terminate at stream gage E244, rather that the confluence of Twomile Canyon with Pajarito Canyon. *See* **LANL Ex. 59** at 25-26 (Gallegos Rebuttal).

192. LANL's proposed amendments to Section 140 are shown below and presented in LANL's Proposed Final Rule:

> **20.6.4.140 RIO GRANDE BASIN:** Intermittent portions of S-Site canyon from alluvial groundwater well MSC 16-06293 upstream to Martin Spring, and Twomile canyon from LANL stream gage E244 upstream to its confluence with upper Twomile canyon. (Surface waters within lands scheduled for transfer from DOE to tribal, state or local authorities are specifically excluded.)
>
> **A. Designated uses:** livestock watering, wildlife habitat, marginal warmwater aquatic life, and secondary contact.
> **B. Criteria:** the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

193. LANL also provided technical testimony and substantial scientific data in support of its proposal for Section 140. **LANL Ex. 3** at 26-31 (Gallegos Direct); **LANL Ex. 4** at 28-34 (Goering Direct); **LANL Ex. 59** at 25-31 (Gallegos Rebuttal); **LANL Ex. 60** at 5-6 (Goering Rebuttal).

194. The Commission finds that LANL's proposed amendments to NMED's proposed language for new Section 140 are well taken and supported by the weight of the evidence. The Commission hereby adopts LANL's proposed language as reflected in the Proposed Final Rule submitted by LANL.

195. The Commission agrees with LANL that the reach of Twomile canyon to be included in Section 140 should end at stream gage E244 instead of the confluence at Pajarito Canyon. As demonstrated by LANL's technical witnesses, Mr. Gallegos and Mr. Goering, Hydrology Protocol Level 1 and Hydrology Protocol Level 2 data and information do not justify extension beyond gage E244. *See* **LANL Ex. 59** at 26 (Gallegos Rebuttal); **LANL Ex. 60** at 14 (Goering Rebuttal).

196. The Commission also agrees with LANL that while the data support a marginal warmwater aquatic life use for intermittent portions of S-Site canyon from monitoring well MSC 16-06293 to Martin Spring and intermittent portions of Twomile canyon from stream gage E244 to upper Twomile canyon, additional data presented by LANL demonstrates that the water quality in Effluent canyon from Mortandad canyon to its headwaters may not support a marginal warmwater aquatic life use. **LANL Ex. 60** at 5-6 (Goering Rebuttal). Therefore, the Commission finds that reclassification of Effluent Canyon under proposed new Section 140 is premature at this time.

CERTIFICATE OF SERVICE

I hereby certify that on September 24, 2021, a true and correct copy of the foregoing ***Triad National Security, LLC and The United States Department of Energy's Closing Argument*** was served via electronic mail to the following:

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